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ABSTRACT

The seven years since the enactment of ESEA Title I in 1965 provided a unique opportunity to attempt to find answers to unanswered questions about the teaching-learning process, especially in relation to minority group children and youth, and to students from low socioeconomic backgrounds. The flood of new programs provided fertile grounds for doctoral dissertation research on the education of the disadvantaged. Bits and pieces of research throughout the country are entombed in "Dissertation Abstracts International" and in university libraries. The ERIC-IRCD staff believing that much could be learned about doctoral research itself, about children, and about educational programs, decided to attempt to provide comprehensive collections of abstracts in those areas of special interest to ERIC-IRCD. The present document is one of several being prepared for a new series of publications entitled "ERIC-IRCD Doctoral Research Series." Over 700 abstracts were photocopied, sorted, and indexed. All indexing is based on titles rather than on abstracts. Dissertations may be purchased in microfilm or hard copy form from University Microfilms, Ann Arbor, Mich. Order numbers have been provided for each dissertation at the end of the citation. (Author/JM)

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ERIC/IRCD DOCTORAL RESEARCH SERIES

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MEXICAN AMERICANS: AN ANNOTATED BIBLIOGRAPHY OF DOCTORAL DISSERTATIONS

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Preface

The seven years since the enactment of ESEA Title I in 1965 provided a unique opportunity for anthropologists, sociologists, psychologists, political scientists, educators, and others to attempt to find answers to unanswered questions about the teaching-learning process, especially in relation to minority group children and youth and to students from low socioeconomic backgrounds. Not only did the law provide extensive funds for compensatory and innovative programs, but it also mandated built-in evaluation measures. The flood of new programs provided fertile grounds for doctoral dissertation research on the education of the disadvantaged.

The plaintive cry of most students completing doctoral dissertations has been "all that work and where does it lead?" Bits and pieces of research throughout the country are entombed in Dissertation Abstracts International and in university libraries with only upcoming doctoral students forced to survey what has been done so that new outlines will not duplicate what has already been completed.

The ERIC/IRCD staff, believing that much could be learned about doctoral research itself, about children, and about educational programs, decided to attempt to provide comprehensive collections of abstracts in those areas of special interest to the Center. This document is one of several being prepared for a new series of publications entitled ERIC/IRCD Doctoral Research Series.

The first step taken was to do a computerized search, using the Datrix system, of the available tapes of Dissertation Abstracts International from 1965 to 1969 employing the following special descriptors: black, Puerto Rican, Mexican American, inner city, poverty, ghetto, urban, slum, rural, Negro, American Indian, and disadvantaged. The computer printouts of the resultant lists were then screened to eliminate all except those abstracts which clearly related to educational programs for the disadvantaged.

A hand search was then conducted for documents appearing in the January 1970 to June 1972 volumes to bring the colllection as up to date as was possible at that time. Descriptors used for the hand search were: disadvantaged, desegregation, inner city, black, Negro, American Indian, Mexican American, Puerto Rican, (Spanish surname added later).

In all, over 700 abstracts were photocopied, sorted, and indexed. All indexing in Dissertation Abstracts International is based on titles rather than on abstracts. There are limitations resulting from the omission of other descriptors and computer or human oversight, which will be discussed in the introductions to appropriate collections.

It is expected that each of the collections will, by providing all related abstracts in one document, be of value to many lay, professional, school, and university groups.

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numbers have been provided for each dissertation at the end of the citation. Prices have not been indicated because of past or possible future changes. In addition, dissertations may frequently be borrowed on inter-library loan from the sponsoring universities.

Each collection is organized in the following way. Documents are first grouped under main topics. Under the main headings, abstracts are presented in order of year of completion. Where a number of abstracts appear under a topic and in the same year, they are then arranged in alphabetical order by name of author. There is also a subject index, which includes several references for each abstract, an author index, and an institution index.

In the interest of objectivity and comprehensiveness, all appropriate documents have been included even though many present conflicting views, and do not necessarily represent the Center's policy or position.

The Center would like to be informed about any other appropriate dissertations in these categories since there are plans to update and supplement these collections in the future. The name of the author, the title of the dissertation, and the month and year of completion is the only information required.

MEXICAN-AMERICANS

Bilingual

1. Barclay, Lisa Frances Kurcz. The Comparative Efficacies of Spanish, English and Bilingual Cognitive Verbal Instruction with Mexican-American Head Start Children. Stanford University, 1969. 372p. 70-1496.

An experimental language and concept formation training program was tested with Mexican-American Head Start children in the New Haven Unified School District, Union City, California during the summer of 1967. Sixty-seven children were randomly assigned to six experimental treatment groups and two control groups taught by two special teachers. The children were tested both at the conclusion of the program and again in the Spring of 1968.

In view of the equivocal results of some other Head Start studies, this study was designed to incorporate the structured cognitive concept formation approach stressed by Ausubel with linguistic training methods for non-native English speakers to determine if such an approach might have more lasting results. In addition, the study attempted to determine whether the use of English, Spanish, or both as the language of instruction would result in the greatest language gain.

Ten linguistic and six conceptual objectives were developed, and a curriculum based upon these was written for the three different language modes. All children enrolled in the Head Start program were randomly assigned to eight groups and these to the eight treatment conditions (four treatments, including control, x two teachers). After dropouts and native English speakers were removed from the study, 67 children remained. Each of the three experimental treatments, replicated by the two teachers, consisted of an intensive structured training program applied daily during a 35 minute period, and differing from each other only in the language of instruction used. The control treatment involved the use of music and art activities with the same teachers for an equivalent time period. Each group met 26 times. While not in the experimental classes, children spent their time in the regular Head Start program.

All children were pretested on the Peabody Picture Vocabulary Test. Posttesting during the last week of the program and followup testing during the following Spring was done on the Peabody, two subtests of the Illinois Test of Psycholinguistic Abilities, three subtests of the Vance Language Skills Test, the Templin-Darley Test of Articulation and three tests devised by the experimenter.

Test results were analyzed using correlation and one-way and two-way analyses of covariance.

The research hypotheses tested were:

1. The use of a structured language training program, based upon both psychological and linguistic foundations, for two short time periods daily during the seven-week Head Start program will result in greater language development as measured by appropriate tests than will the use of music and art activities for commensurate time periods with bilingual

and Spanish-speaking Mexican-American Head Start children.

2. A bilingual presentation of the above language training program will result in greater language development in English than either a Spanish or English presentation alone.

Analysis of the data showed that Hypothesis 1 could not be sustained. On none of the posttest or followup test variables was there a significant F ratio favoring the treatment groups. Two results weakly supportive of Hypothesis 2 were found. On one posttest comparison the Bilingual group was significantly higher than the Spanish group; on another posttest comparison it was higher than the English group. However, in both instances there were teacher x treatment interaction effects which tended to weaken the main effect. Hypothesis 2 therefore must be rejected for 18 out of 20 instances, and is only weakly supported in the other two instances.

This study thus showed that even in a structured language and cognitive training program during a summer Head Start experience, disadvantaged bilingual and Spanish-speaking children did not learn more, as measured on standardized tests, than did their peers exposed to a control treatment of music and art activities.

2. Cornejo, Ricardo Jesus. Bilingualism: Study of the Lexicon of the Five-Year-Old Spanish-Speaking Children of Texas. The University of Texas at Austin, 1969. 228p. Adviser: Professor Joseph Michel. 69-15,801.

The country is passing through a period of acute awareness of the bilingual. One of the problems faced by people studying bilingualism has been that of defining bilingualism and determining who is bilingual. In the specific case of the Spanish-speaking children of Texas, the situation is such that their language skills go from almost 100% Spanish to almost 100% English, with various degrees of compound, coordinate, and balanced bilinguality. This diversified speech pattern presents a serious challenge to the educators of these children.

The language research dealt with in this dissertation had as an aim to collect an initial corpus of recorded material representing the speech of the children, in order to gather information concerning the lexicon of these children before they enter first grade. The project was started in April, 1967; its purposes were: a) to collect a sample corpus of recorded speech, b) to develop techniques for eliciting speech, c) to develop pictorial and other types of materials for use in collecting speech, d) to evaluate different types of interview materials, e) to do lexical, phonological, and syntactical analyses of the findings, as well as a study of cultural patterns as shown in the language behavior of the children interviewed. The informants were selected according to criteria set up by a team of consultants and were chosen from four areas: 1) border-urban, 2) border-rural, 3) interior-urban, and 4) interior-rural. The interview materials were chosen from several sources, the basic one being the Illinois Test of Psycholinguistic Ability.

The preliminary analysis of the findings showed some linguistic patterns which were unexpected. One of them was the high frequency of "baby talk" in the speech of children who are about to enter school. The second important finding was that English is already the predominant language at that age. This was demonstrated in the high degree of lexical, phonological,

and syntactic interference from English to Spanish, whereas interference from Spanish to English was highly significant at the phonological level but minor at the lexical and syntactic levels. This language situation should be studied in detail, especially because of its implications in the preparation of teaching materials for bilingual education programs. In order to improve the language skills of these children, it is necessary to set up a language program which can provide for their needs in terms of their socioeconomic status, family background, environment, and intellectual development.

3. Vasquez, Librado Keno. An Experimental Pilot Bilingual Model School For Transient Mexican-American Students. University of Oregon, 1969. 212p. Adviser: Dr. Arthur Pearl. 70-15,362.

There are more than five million Mexican-Americans in the United States, eighty (80) per cent of whom live in California and Texas. Most of the others are found in Arizona, Colorado, Ohio, Oregon, New Mexico, Washington, and Illinois. In excess of four million of these people live in urban areas. The Mexican-American is the second largest minority group in the United States. The number increases steadily because Mexican-Americans raise larger families than any other ethnic groups. Most are of native Nahautl stock with the incursion of some European, principally Spanish blood. For several hundred years, their ancestors comprised one of mankind's most advanced civilizations, but, with the adverse political change after the Mexican-American War ended in 1848, they have become a poor and exploited minority within Anglo-American society. Even adequate nutrition is difficult to obtain for those who work hardest. particularly transient-workers, are characterized by some as "lazy" or, more politely, as "lacking in goal orientation." Americans of European origin generally admire the individual who speaks more than one language unless that individual is of Mexican descent.

Bilingualism has been discouraged, sometimes cruelly quashed, in schools of the Southwest, which unfortunate situations have created a great number of people who communicate bilingually and speak neither English nor Spanish very well. This attitude typifies a predominant Anglo-American attitude toward Mexican-Americans that somehow their culture is substandard. The time has long come when culturally different must not mean culturally inferior. Sociological evidence merely support the obvious: If society teaches self pride to its children, self pride is what they will learn; conversely if they are taught to be ashamed of their race and culture, they will learn to hate themselves. Also, if their language is respected and used, they will learn more from their teachers than if it is disrespected and not used at all. The Experimental Pilot Bilingual Model School for Transient Mexican-American students is open to all transient and stable Mexican-American students (K-12). The method in which these subject-matters have been implemented is bilingual. The main objective of this model school is to reintegrate the transient and stable Mexican-American students into the regular classroom at the earliest possible time. In this dissertation, there is an outline that has specific plans for a future experimental pilot

bilingual model school for Mexican-Americans and an evaluation of a brief pilot testing program which has compared the achievements of Mexican-Americans in a Southern California Junior High School under monolingual and bilingual teachers, using the Stanford Achievement Test. Although the results of the pilot program reveal some general information about the two groups, it did not establish any statistically significant difference; this fact is most likely explained by the briefness of the five week instructional period.

4. Lugo, James Oscar. A Comparison of Degrees of Bilingualism and Measure of School Achievement Among Mexican-American Pupils. University of Southern California, 1970. 172p. Adviser: Professor Metfessel. 71-7724.

The major purpose of this study was to explore the relationship between three degrees of bilingualism of Mexican-American pupils, from the ghetto of Los Angeles and fifty-six measures of school achievement in order to develop criteria for early pupil placement into one of the three existing school programs: (1) English-as-a-second-language; (2) bilingual education; and (3) the regular school program. Ancillary goals were to explore the corollary effects of sex and intelligence on the measures of school achievement. Another purpose was to develop an instrument for measuring educator and pupil readiness to participate in bilingual education.

Null hypotheses were advanced for all the above relationships.

A random sample of fifth-grade Mexican-American pupils from six elementary schools were classified on the Lugo Bilingual Index in terms of (1) preferred language or languages, (2) pupil birthplace, (3) parental birthplaces, and (4) country or countries of early education. This resulted in a continuum of predominantly English speakers to predominantly Spanish speakers.

Through a series of fifty-six 3-way analyses of variance and a series of fifty-six 2-way analyses of covariance with intelligence as the covariate, the three independent variables were tested for main effects and interactions with grade-point averages in ten school subjects from grade one through five and on the six subtests fo the California Achievement Test at the end of the fifth year. To assess knowledge and attitudes related to bilingual pupils and education, the Lugo-Metfessel Bilingual Education Survey for Teachers (B.E.S.T.) was given to all principals and to a random sample of permanent and probationary teachers of the same school district. Results from this instrument were analyzed by a series of Kruskal-Wallis analyses of variance by ranks, t tests, and a correlation matrix.

Findings: The multivariate analysis of pupil data yielded 46 significant differences at the .05 level of confidence out of a possible 1173. Such findings could have occurred by chance as a Type One error. The analysis of B.E.S.T. yielded significantly higher scores for the principals. Principals and permanent teachers agreed signigicantly more so than probationary teachers that Spanish should be used as a language of school instruction for pupils who know little or no English. The mean score of educators suggested a neutral attitude toward bilingual education and a general lack of knowledge concerning the Mexican-American.

Conclusions: The regular school program in the school district studied does not seem to be helping the Mexican-American pupil to achieve school success regardless of (1) English language competency, (2) pupil birthplace, (3) parental birthplaces, (4) sex membership, (5) length of residency in the United States, and (6) scholastic aptitude. The results suggest that lack of English may not be the most important barrier to the school success of the Mexican-American. The fact that Spanish-speaking pupils of recent residency did not fall behind English speakers suggests that positive identification with one's culture is a more powerful motivator for tested achievement than competency in English. Perhaps the development of culturally relevant curriculums in both languages for use with speakers of Spanish and English of different residential backgrounds may provide the necessary alternatives. Educators of Mexican-American pupils need intensive in-service education.

Recommendations: The study should be replicated in the same school district and in others for validation and generalization purposes. Learning experiments using varying amounts of both language with contents reflecting both cultures with pupils of similar linguistic and cultural backgrounds may provide a basis for developing more effective bilingual programs. Evaluation instruments are needed to assess bilingual education.

5. Bernal, Ernest M. Jr. Concept Learning Among Anglo, Black, and Mexican-American Children Using Facilitation Strategies and Bilingual Techniques. The University of Texas at Austin, 1971. 112p. Adviser: S. Thomas Friedman. 72-15,707.

Concept learning among Blacks, Anglos, English monolingual Mexican-Americans, and Spanish-English bilingual Mexican-Americans was studied under two different conditions: the administration of two specially adapted concept learning tasks (1) according to standard, printed directions, and (2) under facilitation, which included practice on similar test items with feedback. Variables controlled in this research included experimenter variables and the age, sex, educational level, and clinical normalcy of Ss. Certain analyses also controlled for SES.

Results indicate that (1) Anglos do significantly better than ethnic minorities under standard administration of concept learning tasks; (2) minority groups all score significantly higher under facilitation strategy used, whereas Anglo groups do not; and (3) all groups score equally under facilitation.

These findings were taken to mean that (1) concept learning tasks normally favor Anglo student groups because of a differential experience readiness among ethnic groups to take these tests; (2) environmental influences can serve to equate groups; and (3) the heredity vs. environment explanations of ethnic differences in concept learning under standard conditions are in one sense irrelevant, for the problem may be said to pivot on the familiarity-unfamiliarity of test content for diverse groups and on pretesting preparations or directions given to students: different

pretest experiences provide different effects on performance such that under facilitation conditions, Anglos=Blacks=Mexican-American monolinguals=Mexican-American bilinguals.

6. Del Buono, Xavier Antonio. The Relationship of Bilingual/Bicultural Instruction to the Achievement and Self-Concept of Seventh Grade Mexican-American Students. Michigan State University, 1971. 180p. 72-8677.

Mexican-American educators, parents, and community groups are seeking new and innovative ways to provide better educational opportunities for Spanish-speaking students. Since it is generally accepted that a major obstacle to educational achievement among students from this population is the differences in language and cultural background between themselves and the schools, emphasis is being given to bilingual/bicultural school programs.

The literature in this field reveals many studies of the phenomenon of bilingualism but few studies relate directly to bilingual education and its effect on school achievement and student academic self-concept. However, the literature does reveal several basic constructs related to the achievement and self-concept of bilingual students. It is evident that students from bilingual backgrounds often lack essential communication skills and this has an adverse effect upon their achievement, as measured by standardized tests. Bilingual students are culturally different from other, monolingual students and demonstrate that the values held in the home are different from those held in the community as a whole. There students may have somewhat higher potentialities than monolingual students from a similar environment, but may not be encouraged by their cultural background to value certain personality characteristics which contribute to school achievement in traditional schools. It is also evident from the literature that the student's self-concept may be affected by the conditions of poverty, language difficulties, and migration, and that teachers may have an influence on the self-concept.

The purpose of this study was to probe the relationship of a bilingual/bicultural school program and the achievement and academic self-concept of Mexican-American seventh grade students. The premise held was that Mexican-American students who were taught subject matter in their native language for a portion of the school day and received systematic, sequential instruction in English as a Second Language would achieve greater and have more positive self-concepts of their ability to achieve in school than a similar group of Mexican-American students in a regular school program.

The design of this study was descriptive. Pre-existing groups were compared to their mean post-test scores on achivement in social studies, reading, language, and academic self-concept. Data were also gathered on socio-economic status and mental ability of the population sample. In the multivariate analysis of covariance the SES and mental ability were held as covariates and student scores on the Stanford Achivement Subtests, Social Studies, Paragraph Meaning, Language; and on the General Self-Concept of Ability Scale were used as dependent variables.

Findings

Within the basic framework of this study and the population sample selected, the hypotheses tested provided certain insight as to the relationship of the bilingual/bicultural instructional program and school achievement and academic self-concept of Mexican-American seventh grade students.

In the multivariate analysis of covariance it was found that when the Stanford Achievement Subtests, Social Studies, Paragraph Meaning and Language; and the General Self-Concept of Ability Scale were used as the dependent variables to measure school schievement and academic self-concept, there were differences in the group mean scores between students in the program and students in the comparison group. These differences favored the students in the bilingual/bicultural program.

The univariate analysis of variance indicated that differences occurred between the group mean scores in social studies, language, and academic self-concept, but no difference was found in the test for paragraph meaning.

There was no difference in the analysis between the sexes, nor was there significant interaction between sex and treatment.

Although it cannot be stated that the cause for the differences found was the direct effect of the treatment, it can be concluded that Mexican-American seventh grade students in the bilingual/bicultural program did significantly better in school achievement and had more positive self-concepts of their ability than did Mexican-American seventh grade students in the traditional program.

MEXICAN-AMERICANS

Verbal

7. Jameson, Gloria Ruth. The Development of a Phonemic Analysis for an Oral English Proficiency Test for Spanish-Speaking School Beginners. The University of Texas, 1967. 196p. Advisers: Dr. Archibald A. Hill and Dr. Thomas D. Horn. 67-8115.

The objective of this study to produce an Oral English Phonemic Analysis was to develop a test that could be recorded on tape for uniform administration, recorded by the pupil as he repeated the test items in a period of approximately six minutes, administered by a classroom teacher or teacher's assistant, and scored by her following simple instructions. It was hoped that the resulting analysis of the pupil's oral English would increase the teacher's recognition of errors and her effectiveness in working with the pupil to overcome errors. These objectives appeared to be achieved in the last revision of the Phonemic Analysis presented in this study, although weak areas needing further revision are evident. Further testing under controlled conditions to establish norms and validity is also needed in additional studies.

One hundred fifty-seven pre-school and elementary school pupils were tested in San Antonio and Austin, including control groups of eight Anglo-American children in grades two through six. The scores of 107 Spanish-speaking children in pre-school and first grade classes, in the disadvantaged area of San Antonio's Mexican-American district which is studied in the Horn Cooperative Research Project No. 2468, were analyzed. These 107 pupils were selected from five groups: (1) Pre-school, after three months enrollment, 27 pupils; four first grade groups, after seven months enrollment (some children had also attended a four-week Head Start program before enrolling), (2) Children receiving oral-aural English language instruction through a "culture free" science curriculum, 20 pupils; (3) Children receiving oral-aural Spanish language instruction through a "culture-free" science curriculum, 20 pupils; (4) Children receiving no special language instruction but using the "culture-free" science curriculum, 20 pupils; (5) Children using the standard program for Texas public schools, 20 pupils.

The consonants /v̆,č,š/ produced the greatest number of errors of reproduction among these Spanish-speaking children in all positions. The following final consonants and consonant clusters also resulted in 93-44% error of reproduction among these children: /t,p,d,b,k,g,f,v,θ,-rk,-sk, -sp, and rvd/. English vowels that are new to the native Spanish-speaker caused much less difficulty than was expected.

Nine pupils recordings were scored by 34 teachers of disadvantaged Spanish-speaking children in grades pre-school through three, during the teachers' attendance at an NDEA Institute at the University of Texas. Twelve teachers were native Spanish-speakers and 22 were native English-speakers. The Spearman-Brown Prophecy Formula showed good correlation between the groups of teachers, and between the author (with additional training and experience)

and the teachers, in the scoring. The over-all correlation was 87% agreement on the correct English phoneme, 86% on unpredictable error by pupils, and 85% on substitution of a similar Spanish sound for the English phoneme.

Pre-literate Spanish-speaking children are handicapped in their progress in American schools by the lack of adequate language tests to diagnose their problems in mastering oral English. The Phonemic Analysis presented in this study is "Part A" of an "Oral English Proficiency Test" designed to meet this need. "Part B," scoring literal, non-literal/inferential, and imaginative language is presented in a study by Elizabeth Ott.

8. Ott, Elizabeth Haynes. A Study of Levels of Fluency and Proficiency in Oral English of Spanish-Speaking School Beginners. The University of Texas, 1967. 192p. Adviser: Dr. Thomas D. Horn. 67-8144.

While educators in the Southwest, concerned with the Spanish-speaking student at the preliterate stage, have recognized that oral language development in English basic to instruction in the other language skills of reading and writing, the effects of intensive oral instruction in English as a second language were largely undetermined.

This study reports results of test scores made by two groups of disadvantaged Spanish-speaking school beginners in San Antonio, Texas.

The experimental group, Oral-Aural English (OAE, N=29), was given intensive language instruction in English as a second language; while the control group, No-Oral-Aural (NOA, N=29), was not given intensive language instruction. The entire sample (N=58), however, was taught the same science content.

The two tests yielding scores in this study were: (1) the Linguistic Capacity Index (see hypotheses 4, 5, and 6), developed by Frederick H. Brengelman, Ph.D., and John C. Manning, Ed.D., a group test which measured the students' ability to hear and understand spoken English; and (2) the Ott-Jameson Test (see hypotheses 1, 2, and 3), developed by Elizabeth Ott and Gloria Jameson, an individual test which was designed to measure the student's level of proficiency and fluency in speaking English.

Pre-and post-scores, September and May, were collected and repeated analyses of variance were made.

Six hypotheses were tested with the following results:

(1) Significant differences existed between OAE and NOA groups, favoring the OAE ($P<.001$) in proficiency in spoken English as indicated by accuracy in repeating spoken English after a model.

(2) Significant differences existed between OAE and NOA groups, favoring the OAE ($P<.001$) in spoken English considering appropriate word choice, syntax, intonation and juncture, as judged by the test administrator.

(3) Significant differences existed between OAE and NOA groups, favoring the OAE ($P<.001$) in fluency in spoken English in terms of word count spoken within time limits given for response.

(4) Significant differences did not exist between OAE and NOA groups in recognizing vocabulary from hearing spoken English.

(5) Significant differences did not exist between OAE and NOA groups in hearing and differentiating contrasting phonemes, English-Spanish.

(6) Significant differences did not exist between OAE and NOA groups in hearing and differentiating contrastive grammar, English-Spanish.

Highly significant gains were made by pupils receiving intensive language instruction (OAE) as indicated by level of proficiency and fluency in speaking English. Pupils taught the same science content (AAAS: Science, A Process Approach) but not given intensive language instruction (NOA) were equally as proficient in hearing and understanding spoken English.

Limitations include: (1) sample size, and (2) need for replication of the study to further determine reliability and validity and scorer variable.

The primary implication from the results of this study is that the language power of content rich in concepts and developed through varied and interesting learning experiences, added to effective oral-aural techniques in English as a second language, can produce significant gains in achievement for Spanish-speaking school beginners.

9. Pena, Albar Antonio. A Comparative Study of Selected Syntactical Structures of the Oral Language Status in Spanish and English of Disadvantaged First-Grade Spanish-Speaking Children. The University of Texas, 1967. 152p. Advisers: Thomas D. Horn and Joseph Michel. 68-4327.

This study was designed to investigate the status of some basic syntactical structures of the oral language development that disadvantaged first-grade Spanish-speaking children possess in Spanish and English. Specifically, this study consisted of an intensive comparative analysis of selected basic sentence patterns and transformations in Spanish and English manifested in the responses of the subjects at the beginning and at the end of the first grade. An ancillary task of the investigation was to field-test the first section of the Language-Cognition Test (Spontaneous Language). This section of the test purported to measure the status of oral language development through a linguistic analysis of the selected basic sentence patterns and transformations present in the oral response of primary grade children. The hypotheses for this study were designed to test for similarities and differences that would be present in the oral language, Spanish and English, of four experimental teaching groups OAS, OAE, NOA, NOA-NS) made up of disadvantaged first-grade Spanish-speaking children. In the four experimental teaching groups, two (OAS and OAE) received intensive oral instruction in Spanish and English, using science-based materials, for one hour a day; one group (NOA) received no intensive oral instruction but used the science-based materials; and the last group (NOA-NS) used neither the intensive oral instruction nor the science-based materials, but did follow the regular program prescribed by the San Antonio Independent School District.

The subjects for this study were chosen in the fall of 1966 from five of nine elementary schools in the San Antonio Independent School District, San Antonio, Texas, participating in The University of Texas Language Research Project. The pupils were randomly selected from twenty-three first-grade classrooms with an equal number assigned to each treatment. None of the students had had any previous first-grade instruction prior to entering school. The original sample consisted to eighty-eight students. Owing to pupil attrition, the sample on which the final analyses were

performed consisted of sixty-four subjects.

The methods and procedures for this study were divided into three phases. In the first phase, the evidence of syntactical structures manifested in the oral language of the four groups at the pre-testing phase was secured by tape recordings and factor-analyzed. The second phase, post-testing consisted of data secured from the groups after each group had been instructed for one academic year according to its own designated treatment. The third phase consisted of obtaining the comparative data on which to test the general hypothesis (that there were no significant differences between group means as a function of treatment).

In general, the hypotheses constructed for this investigation were supported by the results. It would appear from the evidence secured, that regardless of the treatment used the results as measured by the Language-Cognition Test, were essentially the same, i.e., that there were no significant differences in the language used by the four groups under investigation. Each group, nevertheless, manifested oral usage, in varying degrees, of the basic sentences and transformations in both languages. Additionally, it was evident that the first section of the Language-Cognition Test did yield evidence of oral language as it purported to do.

10. Pauck, Frederick Glen. An Evaluation of the Self-Test as a Predictor of Reading Achievement of Spanish-Speaking First Grade Children. The University of Texas at Austin, 1968. 201p. Adviser: Thomas D. Horn. 69-6200.

The primary purpose of this study was to determine the effectiveness of Part II, Oral English Fluency, of the Ott-Jameson Test of Spoken English (Self-Test, as it was referred to in this study), as a predictor of reading achievement of Spanish-speaking first grade children. In addition, this study also sought to determine the predictive effectiveness of the Metropolitan Readiness Tests, Form A, for this same population. Comparisons were then made between the Self-Test and the Metropolitan Readiness Tests to determine if there was a significant difference between the two tests as effective and significant predictors of reading achievement.

For this study a random sample of 152 grade students was selected from the first grade population contained in those schools participating in the San Antonio Language Research Project for Disadvantaged Spanish-speaking Pupils, directed by Dr. Thomas D. Horn, Department of Curriculum and Instruction, College of Education, The University of Texas at Austin, in corporation with the Language-Bilingual Education Division, directed by Dr. Elizabeth H. Ott, of the Southwest Educational Development Laboratory, Dr. Edwin Hindsman, director.

In order to remain in the sample each student must have been in attendance on the days that the following tests were administered: (1) Goodenough-Harris Draw-A-Man Test, September, 1967, administration; (2) Self-Test, January, 1968, administration; (3) Metropolitan Readiness Tests, January, 1968, administration; and (4) Metropolitan Achievement Tests, April, 1968, administration. For the purpose of this study

the predictive measures were the Self-Test and the Metropolitan Readiness Tests; the Metropolitan Achievement Tests (MAT) served as the criterion measure; and the Goodenough-Harris Draw-A-Man Test was used as an estimate of intelligence. Due to the high rate of attrition, the original sample of 152 students was subsequently reduced in size to ninety-seven students at the conclusion of the study.

Subsequent analysis of the data revealed the following:

(1) There is a high correlation between the Self-Test and the MAT subtests; i.e., Word Knowledge, .627; Word Discrimination, .597; Reading, .657. These correlations were all significant at the $<.0001$ level.

(2) There is a high correlation between the Metropolitan Readiness Tests and the MAT subtests; i.e., Word Knowledge, .598; Word Discrimination, .599; Reading, .537. These correlations were all significant at the $<.0001$ level.

(3) The correlations between the Self-Test and the MAT subtests are indicative of a relationship which is largely independent of sex, treatment, and intelligence.

(4) The correlations between the Metropolitan Readiness Tests and the MAT subtests are indicative of a relationship which is largely independent of sex, treatment, and intelligence.

(5) The correlations of the Self-Test and the Metropolitan Readiness Tests with the MAT subtests do not differ significantly.

11. Fowler, Elaine Danielson. An Evaluation of the Brengelman-Manning Linguistic Capacity Index as a Predictor of Reading Achievement of Spanish-Speaking First-Grade Children. The University of Texas at Austin, 1969. 168p. Adviser: Thomas D. Horn. 69-15, 810.

The primary purpose of the study was to determine the extent to which the receptive language capacity of Spanish-speaking first-grade children, as measured by the Brengelman-Manning Linguistic Capacity Index (September, 1967, administration), could predict reading achievement as measured by the Word Knowledge, Word Discrimination, and Reading subtest scores of the Metropolitan Achievement Tests, Form C, Primary I Battery (April, 1968, administration). An additional purpose of the study was to determine the usefulness of added information concerning the subjects' sex, intelligence (Goodenough-Harris Draw-A-Man Test scores, September, 1967, administration), and Metropolitan Readiness Tests scores (January, 1968, administration) when used in combination with the Brengelman-Manning variable to predict each reading achievement criterion.

A random sample of ninety-nine Spanish-speaking first-grade boys and girls in the eight elementary schools in the San Antonio, Texas, participating in The University of Texas Language Research Study for Disadvantaged Spanish-speaking Pupils served as subjects for the study. The schools have more than 90 percent Spanish-surname population and represent the most economically disadvantaged group in this metropolitan area.

The primary method of analysis consisted of correlation techniques

and prediction from correlations by means of multiple linear regression equations, incorporating testing for the significance of the correlation coefficients.

Analyses of the data revealed that there is a high correlation between each Brengelman-Manning variable (Vocabulary, Phonology, Grammar subtests, Word Knowledge, Word Discrimination, and Reading. These correlations were all significant at the .0001 level. It was found that each Brengelman-Manning variable is a significantly useful predictor of each reading achievement criterion when combined with sex and intelligence information. In each case, an appreciable gain, significant beyond the .0005 level, resulted from inclusion of the Brengelman-Manning variable. The analysis also revealed that if no predictive information was desired until January the Metropolitan Readiness Tests scores would be sufficient alone to predict reading achievement, whereas if predictive information was desired in September, the Brengelman-Manning Linguistic Capacity Index would be sufficient to predict reading achievement.

As the conclusions indicate, it would appear that the receptive language capacity of children is associated with reading achievement. The results are indicative of the supposition that receptive language capacity is necessary for beginning instruction.

Since the study was primarily concerned with an evaluation of the Brengelman-Manning Linguistic Capacity Index, it would appear that the instrument is useful and effective in predicting reading achievement of Spanish-speaking first-grade children.

12. Knight, Lester Neal. A Comparison of the Effectiveness of Intensive Oral-Aural English Instruction, Intensive Oral-Aural Spanish Instruction, and Non-Oral-Aural Instruction on the Reading Achievement of Spanish-Speaking Second-and Third-Grade Pupils. The University of Texas at Austin, 1969. 246p. Advisers: Thomas D. Horn and Richard D. Arnold. 70-10,820.

This study was part of the San Antonio Language Research Project, begun in 1964 as one of the twenty-seven USOE first grade studies. The Project's rationale has been that by improving the oral language of Spanish-speaking children, their reading potential is also improved, and that transfer of training from oral language will be reflected in reading and other academic achievement. Oral language was taught using oral-aural techniques through the use of science and self-concept materials, which were deemed "culture fair."

The current study attempted to evaluate the effect of three treatments on reading achievement through analysis of data collected during the third year (1966-67). The data collected were for the treatments of intensive oral-aural English instruction (OAE); intensive oral-aural Spanish instruction (OAS); and non-oral-aural instruction (NOA), and involved two sample groups; (1) Sample I which included 640 third graders, who had been exposed to the same treatment for three years and (2) Sample II which included 760 second graders who had been exposed to the same treatment for two years.

The design of this study was concerned with three principal criteria

and related questions: (1) Treatment main effect: Is one treatment generally more effective than other treatment? (2) Pretest main effect: Do children who score high in the fall tend to do well in the spring also? (3) Interaction: Does the difference between treatments vary according to pretest scores?

All of the analyses were 3x3 analyses of variance. Such analyses provided consideration of two major independent variables, treatment and initial capacity as measured by the four pretests administered in the fall (Culture Fair Intelligence Test of the Institute for Personality and Achievement Testing, Metropolitan Achievement Test, Inter-American English Test, Inter-American Spanish Test). From the pool of available subjects, thirty were randomly selected from one of the treatment groups. The experimenter then selected, from the other treatments, those whose pretest score was matched with the random selection. The three spring tests administered (alternate forms between fall and spring and between samples of the Metropolitan Achievement Test, Inter-American English Test, Inter-American Spanish Test) served as the dependent variable for use in measuring reading achievement.

Subsequent analyses of the data revealed the following: (1) the pretest was highly significant in almost all of the analyses. Therefore children who scored high in the fall tended to do well in the spring also; (2) the limited number of significant interaction effects revealed no distinct pattern. The level of posttest mean, as it was related to any of the three treatments, varied according to the criterion measure used; (3) in Sample I a slight majority of the significant treatment findings favored the NOA group; (4) in Sample II less significant treatment findings were found than in Sample I, but the overwhelming majority favored the OAE group; (5) no significant treatment finding favored the OAS group in either sample; (6) significant treatment effects tended to vary somewhat with the test used for measurement with the Metropolitan Achievement Test and Inter-American Spanish Test usually showing results favoring the OAE group, while the Inter-American English test tended to show results favoring the NOA group, particularly in Sample I; (7) significant treatment findings from the criterion measure subtests, such as vocabulary or comprehension, revealed no consistent pattern with respect to treatment.

The findings of this study have not supported the OAS treatment as an effective tool for improving reading achievement for the population under study. On the other hand, the findings have yielded no basis for firm conclusions as to the relative effectiveness of the NOA and OAE treatments. However the pattern of findings, between the samples, with respect to these two treatments, make it appear possible that the longer experience which teachers in Sample II had with the OAE treatment may have affected the results. This possibility needs to be tested by replicating this study, but with the modifications of: (1) omitting the OAS treatment (or involving only truly bilingual teachers in the OAS treatment); (2) providing a more careful control of the teacher-experience variable mentioned; (3) by possibly excluding the Inter-American Spanish test (for reliability reasons); (4) and by including a test (which was unavailable for this study) for assessing the oral language development of the population under study.

13. Taylor, Thomasine Hughes. A Comparative Study of the Effects of Oral-Aural Language Training on Gains in English Language for Fourth and Fifth Grade Disadvantaged Mexican-American Children. The University of Texas at Austin, 1969. 152p. Adviser: Richard D. Arnold. 70-10,874.

This study examined the effects of continuous oral-aural language teaching techniques used with low socio-economic urban Spanish-speaking children. Six treatment groups were considered: (1) Language Cognition English (LCE) which provided intensive oral-aural English instruction using specially designed science-based materials for one hour a day for five years (N=32); (2) Language Cognition English (LCE) which received the same treatment for one hour a day for four years (N=27); (3) Language Cognition Spanish (LCS) which provided intensive oral-aural Spanish instruction using the same science-based materials for one hour a day for five years (N=26); (4) Language Cognition Spanish (LCS) which received the same treatment in Spanish for four years (N=20); (5) Fifth grade Control, students receiving English instruction according to district curriculum policy; and (6) Fourth grade Control, students receiving English instruction according to district curriculum policy.

Due to the lack of suitable oral language proficiency tests an experimental language test, based on the Gloria and David instructional materials provided by Language Arts Inc. of Austin, was developed and pilot-tested. Four dimensions of language were considered: (1) phonology, (2) intonation, (3) fluency, and (4) total language, a composite of the first three. The Chi Square technique determined that the validity between test scores and teacher judgment was significantly high ($P<.001$). Reasonable reliability was assumed because of consistency of responses from all students.

An analysis of variance was used to determine differences between the treatment groups. At the fifth grade level significant differences existed between groups on phonology, fluency and total language ($P<.05$). Fifth grade mean scores favored the Spanish group on all subtests except intonation. At fourth grade differences were not statistically significant on any language subtest; however mean scores favored the Spanish group on phonology, fluency, and total score. These findings might suggest that some instruction in Spanish is beneficial to English language proficiency.

Intercorrelations among the subtests and total scores indicated that the fluency subtest and total score are very highly related ($r=.96$). Intercorrelation analyses suggest that the short fluency test might serve as a quick two and one-half minute measure of general language proficiency.

14. Allred, Forrest Rich. Errors in Oral English Usuage of Mexican-American Pupils with a Spanish Language Background in Grade III in the State of Colorado. University of Northern Colorado, 1970. 278p. 71-4148.

The purpose of this study was to contribute information through analyzing the tape-recorded spoken language of third grade Mexican-American pupils with a Spanish language background in the public schools of the State of Colorado by (1) identifying which errors in English usage the pupils make;

(2) classifying and tabulating the gross frequency of errors, the relative frequency of errors, the error quotients, and the number of errors per 1,000 running words; and (3) comparing oral English usage errors made by Mexican-American third grade pupils with the errors made by third grade pupils in the "Colorado Studies."

The population of this study consisted of the third grade Mexican-American pupils enrolled in the public schools of the State of Colorado. The sample consisted of four Mexican-American pupils with a Spanish language background from each of forty-five third grade classrooms randomly chosen from which came the informal recorded discussion of the pupils in the sample. After having been transcribed into written form, the typescript was analyzed to identify errors of oral English usages which were then classified and tabulated. Tables containing the number of errors, the number of opportunities for errors, the relative frequency of errors, the number of errors per 1,000 words, and the error quotients were prepared. The tables containing this information also contain comparable information from the third-grade study of the "Colorado Studies."

Findings

The transcript of the informal oral discussions of the Mexican-American study contained 25,361 running words. In this transcript, 623 errors were found. These errors have been tabulated in detail in Table 22, Appendix F. Table 23 is a summary of Table 22 and is also found in Appendix F. This study replicated in part Silvers' third-grade study. For purposes of comparison, his tabulations are presented in parentheses in Tables 22 and 23. Silvers' transcripts contained 31,612 running words, and 625 errors were found.

Of the 623 errors found in the Mexican-American study, 54 per cent were verb errors, 35 per cent were pronoun errors, 7 per cent were adjective and adverb errors, .3 per cent were conjunction errors, and 5 per cent were noun errors; while in Silvers' study, 57 percent of the errors were verb errors, 27 per cent were pronoun errors, 8 per cent were adjective and adverb errors, 2 per cent were conjunction errors, and 5 per cent were noun errors. Only in the pronoun category was there a difference of more than 3 per cent between the two studies.

Possible relationships to the Spanish language background of the pupil participants was indicated by conflict of Spanish inflectional forms with English inflectional forms; the wide diversity of word order found in the Mexican-American study; and the large diversity of error variety in the Mexican-American study not common to Silvers' study.

Implications of Findings

1. The descriptions of the problems and limitations indicate that caution must be observed when interpreting the quantitative findings reported in this study.
2. The value of the findings in this study is in direct ratio to the clarity with which the findings have been defined and described.
3. The oral English usuage of pupils should be evaluated; weakness should be diagnosed; and instruction should be based on specific items which were a source of difficulty.
4. The influence of the Spanish language on the language structure and language use of Mexican-American pupils should be investigated; and English instruction should eventually be based where possible upon the findings of such investigations.

15. Hicks, Jerral Robert. Errors in Oral English Usage of Mexican-American Pupils with a Spanish Language Background in Grade II in the State of Colorado. University of Northern Colorado, 1970. 241p. 71-4185.

The purpose of this study was to analyze the tape-recorded spoken language of second grade Mexican-American pupils in the public schools of the state of Colorado, to (1) identify which errors in English usuage the pupils made; (2) classify and tabulate the gross frequency of errors, the relative frequency of errors, the quotients, and the number of errors per 1,000 running words; and (3) compare oral English usuage errors made by the Mexican-American pupils with the errors made by second grade pupils in the "Colorado Studies."

The population of this study consisted of the second grade Mexican-American pupils enrolled in the public schools of Colorado with exception of special education schools, schools having fewer than 100 Spanish-surnamed children, schools which did not operate grades first through sixth in the same or adjacent buildings, schools which did not have at least one classroom teacher for each grade, and schools which declined to participate in the study. Forty-five elementary schools were randomly chosen. In each school the pupils in one or more classrooms at the second grade level were screened for the purpose of selecting a group of four Mexican-American children who had an understanding of spoken Spanish. The data consisted of six minutes of tape-recorded informal discussion of each group for a total of four and one-half hours of recordings.

The four and one-half hours of student discussion was transcribed into typewritten form and examined to identify those usages which did not conform to the rules and logic of grammar. A basis for determining the acceptability or unacceptability of errors in current usage was provided by adoption from the "Colorado Studies." After the errors were classified and tabulated, the number of errors, the relative frequency of errors, and the number of errors per 1,000 words were computed and entered into the tables. Whenever applicable, the number of opportunities for errors, the number of opportunities for errors per 1,000 words, and the error quotients were computed. Comparable data from the second grade study of the "Colorado Studies" were also included in the tables.

The transcribed discussions of the Mexican-American pupils contained 24,181 running words. Seven hundred ninety-three usage errors or 32.7 incorrect usages per 1,000 words were located, classified, and tabulated. The transcript analyzed in the Hunn Study contained 24,803 running words. Hunn located, classified, and tabulated 403 errors or 16.2 incorrect usages per 1,000 words.

Of the 793 errors found in this study, 61.1 per cent were verb errors, 29.3 per cent were pronoun errors, 4 per cent were adjective or adverb errors, .6 per cent were preposition or conjunction errors, and 5 per cent were noun errors. Comparable figures reported by Hunn were 56.2 per cent verb errors, 31.8 per cent pronoun errors, 5.2 per cent adjective or adverb errors, 2.5 per cent preposition or conjunction errors, and 5 per cent noun errors.

Other usages not counted as errors, were classified and tabulated as questionable preposition choices, confusions of prepositions and conjunctions, and questionable conjunction choices.

Problems and limitations encountered in conducting this investigation were described and listed as findings.

16. Pauls, Leo Wayne. Errors in Oral English Usage of Mexican-American Pupils with a Spanish Language Background in Grade V in the State of Colorado. University of Northern Colorado, 1970. 239p. 71-14,545.

The purpose of this study was to contribute to existing data of oral English usage errors of Mexican-American elementary school children by analyzing the tape-recorded spoken language of fifth grade Mexican-American pupils with a Spanish language background in the public schools of the state of Colorado (1) to identify which errors in English usage the pupils made; (2) to classify and tabulate the gross frequency of errors, the relative frequency of error, the error quotients, and the number of errors per 1,000 running words; and (3) to compare oral English usage errors made by Mexican-American fifth grade pupils with the errors made by fifth grade pupils in the "Colorado Studies."

The sample was forty-five fifth grade classrooms from forty-five schools drawn randomly from the public schools of the state of Colorado.

The data consisted of four and one-half hours of tape-recorded informal discussion of the pupils in the sample. The pupils in each classroom were administered a screening instrument to identify four pupils who understood spoken Spanish. Each classroom group of four pupils provided six minutes of informal discussion for use in this study. The four and one-half hours of tape-recorded discussion were transcribed into typewritten form. The transcript was then analyzed for oral English usage errors, after which the errors were classified and tabulated. Tables containing the frequency of each error, the number of opportunities for errors, the relative frequency of errors, the number of errors per 1,000 words, and the error quotients were prepared for this study and the fifth grade Nebel study of the general population in Colorado.

Findings: In the 27,201 word transcript of four and one-half hours of tape-recorded Mexican-American fifth grade pupil discussions, 503 clearly defined and described errors were identified, classified, and tabulated. Of the 503 errors, 268 were verb errors which accounted for 53.3 per cent of the total errors; 129 were pronoun errors which accounted for 25.6 per cent of the total errors; fifty-nine were adjective errors and adverb errors which accounted for 11.7 per cent of the total errors; twenty-eight were noun errors which accounted for 5.6 per cent of the total errors; and nineteen were preposition errors and conjunction errors which accounted for 3.8 per cent of the total errors. There were 18.49 errors per 1,000 words in the study.

Comparable figures for the Nebel study were 33,383 words from six hours of tape-recorded discussions and 452 errors. The Nebel study had 271 verb errors which accounted for 60 per cent of the total errors; 121 pronoun errors which accounted for 26.7 per cent of the total errors; thirty-nine adjective errors and adverb errors which accounted for 8.0 per cent of the total errors; sixteen noun errors which accounted for 3.5 per cent of the total errors; and five preposition errors and conjunction errors which accounted for 1.1 per cent of the total errors. There were 13.56 errors per 1,000 words in the Nebel study.

The error made most frequently by the Mexican-American pupils was the use of there was, there is, or there's with a plural noun.

17. Roberts, Neil Alden. Errors in Oral English Usage of Mexican-American Pupils with a Spanish Language Background in Grade IV in the State of Colorado. University of Northern Colorado, 1970. 203p. 71-4210.

The purpose of this study was to analyze the tape-recorded informal spoken language of fourth grade Mexican-American pupils with a Spanish language background in the State of Colorado (1) to identify which errors the pupils made in current acceptable English usage; (2) to classify and tabulate the gross frequency of errors, the relative frequency of errors, the error quotients, and the number of errors per 1,000 running words; and (3) to compare the findings of this study to the findings of the parallel grade level study of the "Colorado Studies."

From forty-five randomly selected schools in the State of Colorado, four fourth grade students from each school were selected for six minutes of informal discussion.

The four and one-half hours of tape-recorded discussion were transcribed into typewritten form. This transcript was marked to identify word uses which violated rules of grammar. An error classification from the "Colorado Studies " was used to identify what constituted an error.

After all errors and opportunities for errors were marked and counted and after relative frequencies, frequencies per 1,000 words, and error quotients were computed, tables containing this information were prepared.

In 25,554 words, 562 errors were identified. Of these errors, 57.5 per cent were verb errors, 7.7 per cent were adjective-adverb errors, 28.8 per cent were pronoun errors, 2.3 per cent were preposition or conjunction errors, and 3.7 per cent were noun errors.

Usages which could not be clearly defined were not included in the tabulations but were placed in special tables. In the following paragraphs, corresponding figures from the Ribbens study appear in parentheses.

There were 323 verb errors, 105 or 32.5 (19.7) per cent in the disagreement of the verb and the subject, 118 or 36.7 (56.1) per cent were in the incorrect use of tense-forms, thirty-six or 11.1 (8.4) per cent were in the incorrect formation of verbs, twenty-six or 8.0 (7.9) per cent were in the use of the wrong verb and incorrect use of verbals, and thirty-eight or 11.7 (7.5) per cent were miscellaneous verb errors.

Of 162 pronoun errors, six or 3.7 (19.8) per cent were with incorrect case forms, seventy-five or 46.6 (17.5) per cent were in lack of agreement with antecedent, seventy-one or 43.5 (54.8) per cent were with redundant pronouns, and ten or 6.2 (7.9) per cent were miscellaneous pronoun errors.

Of forty-three adjective-adverb errors, twenty-three or 53.5 (33.3) per cent were in the confusion of adjectives and adverbs, two or 4.6 (7.1) per cent were comparison errors, ten or 23.3 (33.3) per cent were double negatives, two or 4.6 (23.8) per cent were article errors, and six or 14.0 (2.4) per cent were miscellaneous errors.

The use of and for to accounted for twelve or 92.3 (1.000) per cent of the preposition-conjunction errors. The only other error was in the miscellaneous category.

Of the twenty-one noun errors, two or 9.5 (14.3) per cent were incorrect formation of plurals, twelve or 57.1 (71.4) per cent were confusion of plural and singular forms, and seven or 33.3 (14.3) per cent were miscellaneous noun errors.

The Ribbens study contained 32,590 words; this study produced 25,554 words.

Problems and limitations encountered in conducting this study were noted and were described and listed in the section called "Descriptive Findings." Among the problems and limitations described were classification problems, opportunity count problems, tape-recorder and recording problems, discussion problems, questionable usages, degrees of acceptability of usages, and problems regarding the error quotient.

18. Olesini, Jose. The Effect of Bilingual Instruction on the Achievement of Elementary Pupils. East Texas State University, 1971. 80p. Adviser: Dr. L. D. Briggs. 72-10,824.

The purpose of this study was to evaluate the achievements of two composite groups of bilingual students in the subject areas of: vocabulary, reading, spelling, language, arithmetic computations and arithmetic concepts to determine if bilingual instruction had made a significant difference in the academic achievements of these children. The groups were composed of children whose parents were urban and rural dwellers along with some migrant workers.

Sixty third grade Mexican-American children were selected at random. Thirty of these were from class sections that had been instructed with bilingual methods at least two years. The other thirty were from class sections that had received no bilingual instruction. A comparison of the chronological ages and the scores on the Otis Quick Scoring Mental Ability Test of the control and experimental group revealed no significant difference. The scores of the Metropolitan Achievement Test, Battery A administered in October were compared with the alternate form administered in April. The results were treated statistically with the use of an IBM computer.

The experimental situation was designed to test the following hypotheses:

Hypothesis 1. There will be no significant difference in the vocabulary achievement between students taught by bilingual methods and those taught by traditional methods.

Hypothesis 2. There will be no significant difference in the reading achievement between students taught by bilingual methods and those taught by traditional methods.

Hypothesis 3. There will be no significant difference in the spelling achievement between students taught by bilingual methods and those taught by traditional methods.

Hypothesis 4. There will be no significant difference in the language achievement between students taught by bilingual methods and those taught by traditional methods.

Hypothesis 5. There will be no significant difference in the arithmetic computation achievement between students taught by bilingual methods and those taught by traditional methods.

Hypothesis 6. There will be no significant difference in the arithmetic concepts achievement between students taught by bilingual methods and those taught by traditional methods.

Hypothesis 7. There will be no significant difference in composite achievement between students taught by bilingual methods and those taught by traditional methods.

In the academic areas of spelling and arithmetic computations there was no significant difference in the achievements between the control and experimental groups. In the academic areas of vocabulary, reading, language and arithmetic concepts there was a significant difference between the achievement of the control and experimental groups. There was also a signifcant difference between the mean grade placements of the control and experimental groups.

The results of this study indicated that bilingual children of both sexes achieved greater gains in the academic curricula when they were instructed with bilingual methods. Bilingual instruction reduced the language handicap that bilingual children encounter at school. These children more nearly achieved their potential and, in doing so, not only will contribute to their personal development, but also to the society in which they live.

19. Pike, Earl Oswald Jr. Observationally-Induced Question-Asking Behavior in Disadvantaged Mexican-American Children. University of Oregon, 1971. 131p. Adviser: Richard Rankin. 72-14, 750.

Question-asking can easily be regarded an an information-seeking behavior with major pedagogical import for the child in the primary grades. Through the interrogative mood the child can solicit information from others and designate the form in which he desires to receive the resulting information.

A review of studies dealing with children's questions revealed that little controlled experimentation has been devoted to the development or modification of question-asking behavior. A review of the studies of imitative behavior focused on a dyadic observational learning procedure that appeared to be particularly relevant to a question-asking instructional procedure.

The purpose of the present study represented an attempt to demonstrate the effectiveness of three small-group instructional procedures in developing the question-asking skills of disadvantaged second grade Mexican-American children who were deficient in this respect.

Thirty-six boys and girls were randomly selected from two second grade classes (same school) and assigned to six treatment groups, each containing three boys and three girls. In addition, two treatment groups were randomly assigned to each of three treatment conditions: Modeling plus Praise (M+P), Praise (P), and No-Modeling No-Praise (N-M-N-P). Four successive phases: baseline, training, generalization, and retraining, and a post-training test session were instituted within each of the treatment conditions.

The baseline procedure (i.e., teacher neither systematically modeled questions nor praise those who asked questions) was the same for all treatment conditions and was in effect during all phases of the N-M-N-P treatment condition. During the generalization phase a second teacher was introduced. Throughout the training and retraining phases of the P treatment

condition, the group member's questions were praised. During the training and retraining phases of the M+P treatment condition (an extension of the dyadic observational learning procedure to a small-group instructional procedure in question-asking), the teacher modeled questions and praised the group members' questions. For the latter two treatment conditions, the second teacher introduced the baseline procedure during the generalization phase and subsequently conducted the retraining phase. Following the above four phases, all subjects were individually exposed to a post-training test session designed to provide a measure of acquisition of question-asking behavior.

A 3 (treatment conditions) X2 (sexes) X4 (phases) factorial analysis of variance procedure (performance analysis) with repeated measures on the last factor revealed significant main effects for treatment conditions ($F=15.93$, $df=2/30$, $p<.01$) and significant treatment conditions X phases ($F=14.77$, $df=6/88$, $p<.01$) and sex X phases ($F=3.32$, $df=3/88$, $p<.05$) interactions. Subsequent post-hoc comparisons revealed that question-asking rates for the three treatment conditions during the training and retraining phases were, in descending order, M+P>P>N-M N-P, with relatively high rates in the M+P treatment condition.

A 2 (sexes) X 3 (treatment conditions) factorial analysis of variance procedure employing the post-training data (acquisition analysis) revealed a significant main effect for treatment conditions ($F=3.71$, $df=2/30$, p .05). Post-hoc comparisons showed that the question-asking mean for the M+P treatment condition (5.33) differed significantly from both the N-M N-P (1.67) and P (1.25) treatment condition means ($p<05$), for both comparisons).

It would appear that a small-group instructional technique that employs modeling and praise procedures has a facilitative effect on the question-asking behavior of second grade children who are deficient in this respect. While the introduction of the praise procedure did increase question-asking response rates, the modeling and praise combination would, in addition, appear to aid in the acquisition of such a response. The facilitative effects of a modeling and praise instructional procedure in the development of related language skills needs to be investigated.

20. Stodola, Robert Edmund. Improvement of Communicative Skills for Mexican-American Pupils in Secondary School. United States International University, 1971. 100p. Adviser: Dr. Willis R. Robinson. 71-25,404.

The purpose of this study was to determine if special programs at the secondary school would accelerate the English communicative skills of Mexican-American pupils. Programs in developmental reading and speech-linguistics were tested in contrast to the traditional method of learning the English language.

English as a Second Language curriculums had been questioned as being effective. This study had as an objective to seek additional instructional patterns of improving communication in English for the Mexican-American pupil.

The literature was reviewed in four major areas as it applied to this study in the areas of history, anthropology, educational programs, and instructional strategies.

Specifically, the study focused on questions of curriculum and instruction. Many theorists and curriculum developers had proposed teaching methods and curriculum based upon assumptions mainly untested by research. This study had as one of its objectives the testing of some of these views by research. The study was concerned with the measuring of achievement on standardized tests and the measuring of growth in attitudes. Attitudes toward school were tested to determine if they were independent or interrelated with an academic achievement gain.

The subjects utilized in the study were selected by classroom teachers. The criteria used was (sic) low achievement attributed to the lack of or difficulty in using English. This selection measure was somewhat arbitrary, but it was supported by anecdotal records and test scores from previous years. Previous instruction in English as a Second Language was also used as a criterion for selection.

Ninety pupils were used in the study. Three groups consisting of thirty pupils each were utilized in the study. Pupils were selected and placed in each group at random. An equal distribution of sexes was required in each group. The age range of the pupils was from fourteen to seventeen years of age. Each group was designated as to the type of specialized instruction it was to receive, that is, the group to receive developmental reading instruction was designated as the reading group, the group receiving special oral communication instruction was designated the speech group and the group participating in the regular instructional program was designated as the referent group. The duration of the study was fifteen weeks in length.

All standardized testing was administered by the writer. The test instrument was the California Achievement Test of Reading and English, Advanced, Grades 9-14, 1957 edition. Form W was used as the pretest instrument and Form X, the post test. A graphic rating scale of ten attitudes was constructed and completed for each pupil on the pre and post test dates by classroom teachers of the pupils in this study. The data were analyzed on each group by pre and post test measurement. Each group was subdivided by the mean I.Q. into high and low I.Q. subgroups for further analysis.

The implications to be derived from this study indicated that Mexican-American pupils with English communicative skills deficiencies should be enrolled in a reading class with emphasis on vocabulary and reading skills or a speech-linguistics class with emphasis on oral communication and vocabulary.

MEXICAN-AMERICANS

Reading

21. Crawford, Alan Neal. The Cloze Procedure as a Measure of the Reading Comprehension of Elementary Level Mexican-American and Anglo-American Children. University of California, Los Angeles, 1970. 99p. Adviser: Wilbur H. Dutton. 71-610.

The purpose of this study was to investigate the validity, reliability, and appropriateness of cloze tests as a measure of the reading comprehension of third and sixth grade Mexican-American and Anglo-American children.

The three hypotheses and two related questions involved four basic problems: (1) the correlations between cloze test scores and scores on standardized reading tests and oral reading tests for groups at each grade level; (2) the differences among cloze test scores for groups at each grade level; (3) the reliability coefficients of cloze test scores for groups at each grade level; and (4) the degree of correspondence between instructional reading levels determined by cloze tests and by standardized reading tests, oral reading tests, and teacher judgment, for groups at each grade level.

The randomly selected population of 180 subjects consisted of third and sixth grade Mexican-American and Anglo-American children whose dominant home language was English, and Mexican-American children whose dominant home language was Spanish. Each of the resulting groups, which were designated MAE, MAS, and AE at each grade level, consisted of 30 subjects. On the basis of standardized reading test scores, the subjects at each grade level were classified as more able or less able readers.

The reading subtests of the Stanford Achievement Test. Primary II, Form Y, and a cloze test at the second grade level were administered to all third grade subjects. The reading subtests of the Comprehensive Tests of Basic Skills, Level 2, Form Q, and a cloze test at the fourth grade level were administered to all sixth grade subjects. The Gilmore Oral Reading Test, Form C, was administered to selected subjects in each group at both grade levels. Additional cloze tests at other grade levels from first to seventh were administered to all subjects in order to determine their instructional reading levels.

Correlations between scores on cloze tests and on standardized reading tests and oral reading tests were significant for MAE, MAS, and AE subjects at the third and sixth grade levels. Correlations were significant for groups classified as more able or less able except where low variability was produced by the restriction on the range of scores. A significant difference among cloze test scores of the MAE, MAS, and AE groups at the third grade level did not appear at the sixth grade level. The reliability coefficient of all groups except the sixth grade MAE group were above .70. Reliability coefficients for groups classified as more able and less able and for the sixth grade MAE group were affected by low variability produced by the restriction on the range of scores; results were therefore inconclusive. Instructional reading levels determined by cloze tests corresponded closely with those determined by the other measures.

It was concluded that cloze tests were a valid and reliable means of testing reading comprehension and determining instructional reading levels for these third and sixth grade Mexican-American and Anglo-American children.

22. Green, Cecil Calvert ,Jr. A Study of Mexican-American Children Taught by A Spelling-Pattern Approach to Reading Instruction. Texas Tech University, 1970. 146p. Adviser: Dr. Neville H. Bremer. 71-9637.

The purpose of this study was to observe and analyze changes in the English-phoneme control, the reading achievement, and the motivational patterns of first-grade Mexican-American children taught by a spelling-pattern approach to reading instruction.

Fifty-two first-year Mexican-American students in four classrooms were the subjects in this study. All subjects received a minimum of seventy-five days of instruction in the Science Research Associates Basic Reading Series.

Data related to phoneme-control were gathered through structured interviews and by the Phoneme-Control Tests. Speech responses were recorded on magnetic tape and were analyzed by the investigator.

Data related to reading achievement were gathered by a series of Word-Decoding Tests developed by the investigator and by the Cumulative Reading Test for Levels A-D of the Basic Reading Series.

Data related to motivation were gathered by a series of observations of subject behavior during the reading class. Each item of behavior that was observed was recorded on a Motivation Rating Scale.

Among the findings of this study were the following:

1. The mean score for all subjects was significantly higher on the second Phoneme-Control Test than on the first (.01). Both male and female subjects scored significantly higher on the second test (.05).
2. There was no significant difference between male and female subjects on either the first or second Phoneme-Control Test. However, females made fewer errors on each test.
3. There were no significant differences among mean scores on the first and second interviews. Females made fewer errors on the first interviews, but males made fewer errors on the second interviews. The differences between male and female scores were not significant.
4. There was a significant positive correlation between scores on the Phoneme-Control Tests and scores on the Cumulative Reading Test (.01).
5. There was no significant difference in the performance of male and female subjects on the Cumulative Reading Test; however, female subjects scored higher than males.
6. Subjects' scores on each section of the Word-Decoding Tests (Nonsense Patterns, New Patterns, and Patterns in Context) tended to improve as subjects progressed through the test series.
7. There was a positive but not significant correlation between scores on the Cumulative Reading Test and the mean scores for items on the Motivation Rating Scale.

8. Motivation to participate in the reading-learning activities decreased slightly during the second half of the study. It also tended to decrease during the second half of the reading class.

9. There was no significant difference between the mean motivation scores of males and females. There was, however, a significant difference between the mean scores of the highest and lowest scoring classes (.01).

10. Motivation scores were highest when subjects frequently had opportunities to give correct oral responses.

The findings of this study indicate that the spelling-pattern approach is effective with some Mexican-American first graders. However, the positive correlation found between phoneme-control and reading achievement suggests the importance of oral language development to success in reading.

23. Acosta, Robert Torres. Factors Contributing to the Successful Remediation of Reading Disabilities in Mexican-American Third Graders. University of California, Los Angeles, 1971. 202p. Adviser: Wilbur H. Dutton. 72-2767.

Reading is an extremely complex process for Mexican-American children; it is much easier to learn to read one's native language than to learn to read a foreign language which the learner does not speak. Successful reading is not a simple matter of having a child subscribe to a "phonics" or "whole word" approach but rather a complex process influenced by a number of factors that operate at home as well as at school.

The purpose of this study was to identify certain factors or combinations of factors that appear to be contributing to successful remediation of reading disabilities in Mexican American children in Miller-Unruh reading programs. The hypothesized factors which were within the control of the school were methods and materials of reading instruction and teachers' training and experience. The hypothesized factors which were outside school control were parents' degree of acculturation, parents' income level, parents' educational attainment, parents' educational aspirations and parents' occupational desires for the child.

Seven hypotheses were tested at the .05 level of significance: (1) The success of Mexican-American children on the Stanford Achievement Reading Test is positively correlated with their parents' degree of acculturation; (2) The success of Mexican-American children on the Stanford Achievement Reading Test is positively correlated with their parents' income level; (3) The success of Mexican-American children on the Stanford Achievement Reading Test is positively correlated with their parents' educational attainment; (4) The success of Mexican-American children on the Stanford Achievement Reading Test is positively correlated with their parents' educational aspirations for them; (5) The success of Mexican-American children on the Stanford Achievement Reading Test is positively correlated with their parents' occupational desires for them; (6) The teachers of successfully remediated Mexican-American children in reading provide richer methods and materials of reading instruction than teachers of students who made lower Stanford Achievement Reading Test gain scores; (7) The teachers of successfully remediated Mexican-American children in reading have a higher degree of preparation and experience in teaching Mexican-American children than teachers of the students who made lower Stanford Achievement Test gain scores.

Two groups of thirty third-grade students were systematically selected from a list of names that were in alphabetical order. These children were

selected from two school districts making the highest and the lowest mean and median gains on the Stanford Achievement Reading Test, May, 1969. No effort was made to match groups other than requiring that children selected for the study must have been in the school for three consecutive years and that the children be of Mexican descent.

The investigation involved interviewing teachers, specialist teachers of reading, principals and parents of the systematically selected children. These were focused interviews initiated by the writer in a reinforcing and conversational manner. In many cases the interviews were conducted in Spanish, which encouraged parents to be generous with information about their feeling toward school, community, home, and other personal factors. In addition to the interviews, systematic and non-systematic observations were made in the classrooms, in order to collect data on particular teacher behaviors and on the reliability of some interview responses.

At the end of the study a comparison was made between the school showing the greatest mean and median gains and the school showing the least improvement on the Stanford Achievement Reading Test.

The following variables were found significant at the .05 level when the samples were combined:

1. Parents' income level
2. Parents' educational aspirations for child
3. Parents' occupational desires for child

In addition, parents' degree of acculturation was found significant at the .05 level only within School B. No significant correlation appeared between the Stanford Achievement Test gain scores and the parents' level of education in School A or in School B. The results of the Stepwise Multiple Regression Analysis, which was used to predict the students' Stanford Achievement Test gain score, showed that these five home environmental variables are highly intercorrelated.

Sixteen school instructional variables were tested to see whether the teachers from School A were different from teachers in School B on these instructional variables. An overall view of the t-test comparisons indicate little difference between the teachers in School A and School B in regard to methods used, with the exception of the significantly more frequent use of the diagnostic and prescriptive approach to teaching reading in School A. The teachers in School A were found to have a higher degree of preparation and more years of experience teaching children of Mexican descent as well as more years of teaching experience generally.

24. Lakin, David Schoonmaker. Cross Age Tutoring with Mexican-American Pupils. University of California, Los Angeles, 1971. 100p. Adviser: William H. Lucio. 72-2847.

The purpose of this study was to determine whether or not Mexican-American fifth and sixth grade pupils would make significant gains in word recognition and oral reading skills when used as tutors to read orally to Headstart children. Measures of teacher expectations of tutor achievement also were obtained.

A pre- and posttest design was employed. Sixty Mexican-American pupils, randomly selected, were assigned as tutors to either control or experimental groups of thirty pupils each. A second control group, similarly selected, consisted of sixty Anglo-American pupils. All groups were low in academic achievement but average to above in nonverbal ability (as measured by standardized tests). Oral reading pretests were administered to the experimental and control groups. Word recognition skills were selected as measures of change in tutor reading performance and programmed lesson materials were utilized by the tutors during an eight-week instructional program with the Headstart tutees. At the beginning of the study, teachers responded to the first form of a teacher-expectation inventory.

Three training sessions for tutors preceded their tutorial assignment, and during the period they attended one training session each week. The tutors (bussed four days a week to the Headstart Center) read selected stories and asked tutees prepared questions for twenty minutes each day. Following the eight-week period, tutors were administered the reading posttest and teachers responded to the second form of a teacher-expectation inventory. A randomly selected subgroup of twelve each Anglo- and Mexican-American subjects individually recorded a pre- and posttest oral reading test (evaluated by a team of teachers) for purpose of further test validation.

Evaluation of results was based on the significance of mean differences on pre- and posttest reading scores. The Achievement-Placement Test, word recognition subtest (American Book Company, 1969), constituted the vocabulary test. An instrument constructed by the researcher was used to assess teacher expectations of tutor performance. Two selections from Gold and Silver (American Book Company, 1969) were used for the oral reading test.

Group scores on the vocabulary pre- and posttest were analyzed, using analysis of variance. Gains were found to be significant at the .001 level of confidence. Analysis of vocabulary test score revealed that all groups made pre- to posttest gains significant at the .05 level of confidence. The Mexican-American experimental group's score on the vocabulary test was significantly higher than the scores of the other three groups (.005 level of confidence). On the oral reading posttest scores, only the Anglo-American group made significant gains (.05 level of confidence). Twenty-four teachers of fity-two tutors responded to pre- and posttest administration of a teacher-expectation inventory. Gains in tutor mean reading scores as compared with teacher expectations were significant (.05 level of confidence).

The results of the study supported the hypothesis that tutoring, as defined, can improve vocabulary test scores for low-achieving Mexican-American pupils. Evidence supported the hypothesis that measures of teacher expectations may be linked to pupil success. Significant gains in oral reading mean test scores for Anglo-American tutors partially supported the hypothesis that the treatment employed would result in oral reading achievement. It was recognized that measures and treatments were not free from cultural bias or possible uncontrolled external variables.

25. Poulsen, Marie Kanne. Automatic Patterning of Grammatical Structures and Auditory and Visual Stimuli as Related to Reading in Disadvantaged Mexican-American Children. University of Southern California, 1971. 121p. Adviser: Professor McIntyre. 72-3793.

A descriptive study was designed to examine educationally relevant factors that differentiate high achievers from low achievers in reading among economically disadvantaged Mexican-American children. Two groups of children from lower socioeconomic homes were selected from the La Habra School District. They represented populations of Mexican-American readers and nonreaders between the ages of eight and nine years. English was considered to be their primary language, though Spanish was also spoken in the home.

Thirty-seven dependent variables under study were subsumed under seven major dimensions: Patterning of Auditory Stimuli, Patterning of Visual Stimuli, Patterning of Grammatical Stimuli, Integration of Auditory and Visual Stimuli, Cognitive Psycholinguistic Factors, Affective Factors and Environmental Process Characteristics. These were operationally defined in terms of the instruments used to measure them. The independent variable was that of reading achievement. Thirty low achievers who averaged at the 10th percentile on the Stanford Reading Achievement Test and thirty high achievers averaging 65th percentile were selected for study.

Two major research hypotheses proposing a significant difference between the multivariate distribution of high achievers and low achievers in reading on sets of 15 psycholinguistic variables and 15 affective-environmental variables were confirmed ($p=.01$) by discriminant function analyses. Grammatical Closure, Auditory Association and Auditory Reception, in that order, were the greatest contributors to the separation of the two groups in the discriminant function of psycholinguistic variables. Opportunities provided for learning in and outside the home, the amount of information and expectations parents have about their child's intellectual development and the availability and encouragement of use of learning supplies in the home were the greatest contributors to the separation of the two groups in the discriminant function of affective-environmental variables.

A third research hypothesis proposed significant differences between high achievers and low achievers in reading among the children studied on each of 37 variables subsumed under the seven major dimensions when means were compared through analysis of variance. Along all major dimensions the research hypotheses could be accepted except for the Integration of Auditory and Visual Stimuli. What was found to be of statistical significance ($p=.01$) were differences between high achievers and low achievers in reading along measures of Patterning of Auditory, Visual and Grammatical Stimuli, Psycholinguistic Cognitive Factors, Affective Factors and Environmental Process Characteristics.

Significant findings included the following: Low achievers in reading evidence less syntactical, morphological and lexical control over standard English speech than do high achievers. Reading achievement among disadvantaged Mexican-American children is related to the degree of acculturation

the children have with middle class information processing patterns. Culturally divergent children are more accustomed to employing visual channels as sources of information utilization. The expectations and provisions for learning in the home are significantly greater for high achievers. They have been exposed to more opportunities to comprehend, relate and express auditory and visual stimuli in meaningful ways.

Education should be geared to the child's developmental level of language media and organized around his deficient areas in processing. Levels of standard English language and perceptual development should be ascertained for each child upon entering school. There is enough similarity among the low achievers to warrant planned group experiences. The hierarchical nature of language dictates competency in oral language prior to learning to read. Language training for culturally divergent children should focus on the auditory-vocomotor level before attempts are made to teach reading. A child should not learn to read until he has internalized the cue systems of standard English to the point where he responds to them without being consciously aware of the process. Language experience approaches to reading appear to be indicated.

26. Stevens, Frances Ann Bennett. Predicting Third Grade Reading Achievement for Mexican-American Students from Lower Socioeconomic Levels. New Mexico State University, 1971. 172p. Adviser: Dr. Ross E. Easterling. 72-10,836.

The central purpose of this study was to determine if measures of first grade readiness, scholastic aptitude, and reading achievement were significant predictors of end of third grade reading achievement for Mexican-American students from two lower socioeconomic levels. A subsidiary purpose of the study was to isolate the most potent predictor variables of end of third grade reading achievement.

The study setting was Las Cruces School District Number Two, Las Cruces, New Mexico.

The sample included 94 third grade Mexican-American students for whom the following measurements had been obtained: (1) Metropolitan Readiness Test (MRT) administered at beginning of first grade, September, 1967; (2) Metropolitan Achievement Test Primary Battery (MAT) administered at completion of first grade, May, 1968; (3) California Test of Mental Maturity (CTMM) administered at completion of first grade, May, 1968; (4) Metropolitan Achievement Test Elementary Battery administered at completion of third grade, May, 1970; and (5) socioeconomic classification obtained form the Two Factor Index of Social Position (Hollingshead, 1965).

The criterion variable of third grade reading achievement consisted of a composite reading achievement score derived by combining the standard scores received by an individual on the MAT Elementary subtests of Word Knowledge, Word Discrimination, and Reading. The thirteen predictor variables were: MRT Word Meaning, MRT Sentences, MRT Information, MRT Matching, MRT Numbers, MRT Copying, MRT Total Score, MAT Word Knowledge, MAT Word Discrimination, MAT Reading, CTMM Language Data, CTMM Non Language Data, and CTMM Total Data.

A significant relationship between the thirteen predictor variables and the criterion variable was hypothesized for the following groups: (1) total

sample; (2) total sample of boys; (3) total sample of girls; (4) total sample of Social Class IV; (5) total sample of Social Class V; (6) total sample of Social Class IV boys; (7) total sample of Social Class IV girls; (8) total sample of Social Class V boys; and (9) total sample of Social Class V girls. To isolate the variables which were the most potent predictors of third grade reading achievement, a step wise multiple regression analysis was performed for each of the above sub groupings.

The data obtained in this study were reported for each sub group and included: (1) a zero order intercorrelation coefficient matrix; (2) a multiple regression analysis; and (3) a step wise multiple regression analysis. The significance of the following statistics was then determined: zero order correlation coefficients; multiple correlation coefficients; and F ratios for differences between the step wise Rs and overall Rs.

The multiple correlation coefficients for the samples investigated ranged from .34 to .99. Of the nine sub groups involved in this study, significant multiple correlation coefficients between predictor and criterion variables were secured for: (1) hypothesis two, total sample of boys; (2) hypothesis four, total sample of Social Class IV; and (3) hypothesis seven, total sample of Social Class IV girls.

For the three sub groups with significant multiple Rs, the step wise multiple regression analyses isolated the following variables, rank ordered, as potent predictors of end of third grade reading achievement:

1. Total sample of boys
   CTMM Non Language, CTMM Total, and MRT Numbers
2. Total sample of Social Class IV
   CTMM Total Data and MRT Total
3. Total sample of Social Class IV girls
   CTMM Total Data, CTMM Non Language, CTMM Language, MAT Word Discrimination, MAT Word Knowledge, MRT Total Data, MRT Sentences, MRT Copying, MAT Reading.

The following conclusions were derived from the results for the samples investigated in this research. These conclusions were advanced with the caution that care should be taken in generalizing to Mexican-American students not similar to the sample utilized in this investigation.

1. CTMM Non Language, CTMM Total Data, and MRT Numbers could be considered as meaningful predictors of the end of third grade reading achievement for Mexican-American boys from lower socioeconomic levels (Social Class IV and V).

2. CTMM Total Data and MRT Data could be considered as meaningful predictors of the end of third grade reading achievement for Mexican-American students from Social Class IV.

3. CTMM Total Data, CTMM Non Language, CTMM Language, MAT Word Discrimination, MAT Word Knowledge, MRT Total Data, MRT Sentences, MRT Copying, and MAT Reading could be considered as potent predictors of the end of third grade reading achievement for Mexican-American girls from Social Class IV.

MEXICAN-AMERICANS

Self-Concept

27. Firme, Thereza Penna. Effects of Social Reinforcement on Self-Esteem of Mexican-American Children. Stanford University, 1969. 317p. Adviser: Pauline S. Sears. 70-1586.

Mexican-American children face difficulties in school in two main areas: performance and self-esteem. The purpose of this study was to examine the effects of social reinforcement (defined as teacher approval of children's successful behavior) on the self-esteem of low achieveing Mexican-American children. It was assumed that enhancing self-esteem would facilitate the child's adjustment to school and openness to learning.

A general hypothesis of the present study was that the reward value of success for an individual's activities depends on cultural values and that, to affect self-esteem, reinforcement must vary according to the cultural values of the recipient. Thus, reinforcement and reward techniques used to promote self-esteem must involve activities relevant to both Mexican and American cultures. Two modes of behavior, socio-emotional and achievement, were chosen as typical of Mexican and American cultures, respectively. Also, two classes of reward activities, either Mexican or non-Mexican, were chosen for use with teachers' approval of the selected behaviors. The most effective treatments were expected to be those including aspects of both cultures and the least effective those emphasizing only one culture.

Four treatments were defined: (a) social reinforcement of achievement behavior using Mexican rewards; (b) social reinforcement of achievement behavior and non-Mexican reward; (c) social reinforcement of socio-emotional behavior using Mexican rewards; and (d) social reinforcement of socio-emotional behavior using non-Mexican rewards. The sample consisted of 56 low-achieving Mexican-American elementary school children (first to fourth grades). Fourteen subjects (seven boys and seven girls) were randomly assigned to each treatment after stratification according to initial self-esteem scores. Four experimenters rotated regularly among treatment groups for the sixteen classroom sessions. Measures of self-esteem, responsiveness to learning situation, and school attendance were used as pre- and posttest. Also involved were reading scores and aptitude variables, including IQ and mental age, amount of exposure to Mexican and American cultures, degree of Mexican ancestry, father's occupation and chronological age.

Analysis of variance results did not confirm the specific predictions. However, regression analysis of posttest on pre-test self-esteem scores showed significant differences in slopes for the four treatments. Children initially low on self-esteem showed their highest scores at posttest when assigned to socio-emotional behavior treatments, while children initially high on self-esteem scored highest at posttest in achievement behavior treatments. In both cases, Mexican reward seemed superior. These findings offer indirect support to the major hypothesis regarding a bicultural approach and suggest further research on more detailed hypotheses: Mexican-American children with low self-esteem should receive a socio-emotional treatment (typically Mexican) as a first step to enhance self-esteem.

After self-esteem has been raised to some extent, the achievement treatment (typically American) may become more appropriate for promoting further enhancement. In classrooms with children at different levels of self-esteem, teachers should use both reinforcement treatments varying the mix from child to child to make use of values from both cultures.

Results for school attendance provided additional support for the bi-cultural approach. Mixed treatment groups showed significant overall improvement in attendance while mono-cultural treatment groups had little or no improvement. Also, self-esteem correlated positively with responsiveness to learning situation and to amount of exposure to both Mexican and American cultures. Selected other findings were discussed.

28. Hepner, Ethel Marion. Self-Concepts, Values, and Needs of Mexican-American Underachievers. University of Southern California, 1970. 260p. Adviser: Professor Martin. 70-25,031.

It has been generally admitted that existing elementary school programs do not meet the needs and requirements of Mexican-American pupils who are consistently and progressively underachieving in these schools. In addition, there has been a growing concern that teachers have been unwilling to examine their own stereotyped views of culturally-different students, but have rather naively blamed the lack of achievement of these pupils on a variety of what they believe to be "unalterable deficits" of cognitive, linguistic, social class, negative self-esteem, or family-influences which are contrary to the values of the school. The chief target of change has been the child who was sought to be made over in the school's image. So far there has been a lack of willingness to examine the milieu of the school as a possible contributing factor to the Mexican-American boy's lack of achievement.

An attempt was made to examine if successes and failures of divergent ethnic groups can be related to discrepancies in values, self-concepts, and role-identifications between them and the school in which they are expected to function.

Three groups of boys of similar age, intelligence, and SES, differing onlu in achievement in reading, and/or ethnicity, were compared on a Self-Concept instrument, and on reading gains made during a school year in either an experimental reading program, or in the typical elementary class. It was aimed to examine the value clusters of Mexican-American underachievers, and to note how these are similar or different from those of Mexican-American or Anglo-American achievers.

The investigation uncovered significant differences in self-concepts, values, and role-conceptions between Mexican-American and Anglo-American boys which influence their educational behaviors and achievements. It was found that Mexican-American underachievers did not suffer from negative self-esteem, and when placed into a prescriptive educational program, achieved a great deal more than in the regular class where they had been consistently underachieving.

Conclusions. Lack of achievement of the Mexican-American boy is attributed to various sources of conflict between him and the American school. It is suggested that what he needs most is a more structured, technical, and formal learning environment than the typical elementary class offers.

The Mexican-American boy has resisted the American school and culture by retaining a healthy, masculine, and certain identity, and by not allowing himself to become "oversocialized." It is concluded that the value-system of the American school tends to restrict the potential of the Mexican-American boy, who does not achieve because of his deviation-strains from this school-culture; therefore, the school must provide a different learning environment for him.

Recommendations: What is done in the schools must be reexamined, validated, and offerings restyled. Teachers and administrators must be trained differently so that they do not fear the different, or label them disadvantaged, when they are frequently advantaged.

29. Hodges, Jimmy Ross. Goal-Setting Behavior and Self Concepts of Elementary Mexican-American Children. Texas Tech University, 1970. 98p. Adviser: Dr. Owen L. Caskey. 71-9642.

The central purpose of this study was a closer examination of the present personal world of Mexican-American boys and Mexican-American girls regarding self and aspiration at different grade levels in the elementary school. The study was a search to determine if the sex of a child in this ethnic group was significant in perceptions of self and in levels of aspiration.

Seven null hypotheses were postulated to examine the mean differences in levels of aspiration between Mexican-American boys and Mexican-American girls. These null hypotheses were formulated in regard to goals and discrepancy between goals. They were concerned with expected goals before entering a task, ideal or "wished for" goals, expected goals before and after a failure experience, and attempted goals. Three null hypotheses were formulated in regard to self concepts, self-ideal concepts, and discrepancy between the self and ideal self concepts.

The sample consisted of 300 Mexican-American elementary school children, 50 boys and 50 girls from grade two, 50 boys and 50 girls from grade four, and 50 of each sex from grade six. The instrument was constructed by the researcher, and the directions were administered orally in both Spanish and English. Levels of aspiration were measured in relation to nonverbal tasks, and self concepts and self-ideal concepts were measured by rating of descriptive phrases.

Analysis of variance and t-tests were applied to test the ten hypotheses. Linear regressions, quadratic regressions, and factor analysis were used to examine the data for expanding the understanding of the Mexican-American pupil.

Conclusions: No significant differences were found between elementary Mexican-American boys and Mexican-American girls: (1) in level of aspiration prior to entering a new task; (2) in discrepancy between ideal goal and expected goal before entering a new task; (3) in discrepancy between expected goals following failure; (4) in discrepancy between ideal goal and expected goal after failure; and (5) in discrepancy between the expected goal after success and the attempted goal. Elementary Mexican-American boys had a significantly higher mean discrepancy score than did the Mexican-American girls between their expected goal after failure and the goal they attempted. For both boys and girls the attempted goal was higher than the expected goal after failure. Fourth-grade Mexican-American girls were found to have significantly higher discrepancy scores than fourth-grade Mexican-

American boys between a goal preceding success and a goal following success.

Mexican-American boys, more than Mexican-American girls, viewed themselves as persons who are healthy, have fun, are happy, and do what parents ask. Mexican-American girls viewed themselves as more helpful to others and capable of laughing at themselves. In examination of the discrepancy between self and self-ideal concepts, girls produced a larger discrepancy score than the boys on the items relating to doing what parents ask and to improving in school. Boys had a larger discrepancy score on the items concerning the ability to laugh at themselves and the ability to like others.

Results of the study also indicated that both level of aspiration and self concepts were more influenced by grade level than by the sex of the pupils; that level of aspiration rose after a success experience and declined after a failure experience; and that the desire for approval was an important influence on the Mexican-American pupil's developing self concept.

MEXICAN-AMERICANS

Cultural

30. Henderson, Ronald Wilbur. Environmental Stimulation and Intellectual Development of Mexican-American Children: An Exploratory Study. University of Arizona, 1966. 240p. Adviser: Curtis B. Merritt. 66-15,258.

A large proportion of Mexican-American children in the American Southwest experience difficulty in school and fail to acquire skills necessary for a productive role in the community. A review of the literature suggested that what is commonly referred to as intelligence may be largely learned through interaction with the environement. The experiences available to a sub-cultural group may not facilitate the development of the kinds of intellectual abilities needed in a modern technological society.

The principal problem of this study was to compare the environmental backgrounds of Mexican-American six-year-olds to determine whether differences exist between the environments of children showing promise of successful school performance and the environments of children for whom poor performance is predicted.

Ss were 38 Mexican-American six-year-olds for whom school success was predicted, and 42 children for whom poor school performance was predicted. All subjects spoke some Spanish and had Spanish surnames.

The Goodenough-Harris Drawing Test and the Van Alstyne Picture Vocabulary Test were administered to a population of 278 Mexican-American six-year-olds. Children who scored highest and those who scored lowest on these measures were selected for study and designated as High Potential (HP) and Low Potential (LP). These 80 children were also tested with a Spanish Translation of the Van Alstyne Picture Vocabulary Test.

Data on environments were gathered by interviewing the mothers of children in the samples. Typescripts were prepared from the tape recordings of the interviews. Thirty-three rating scales were used to evaluate the protocols of the interviews on nine Environmental Process Variables. A multivariate analysis was used to test the significant of differences in environmental ratings of the two groups. An Index of Status Characteristics was computed for each family and a descriptive analysis was constructed from the protocols to provide additional comparison of the two samples.

The hypothesis that there is no significant difference in the environments of HP and LP children was tested with Hotelling's T . The F ratio of 6.7643 was significant beyond the .01 level [F (df 9, 70)=2.67]. The null hypothesis was rejected.

Scores on the ISC correlated .37 with the composite criterion scores used to predict school success. Composite ratings for the nine environmental variables correlated .59 with the criterion scores. The difference between these two correlation coefficients was not significant.

HP children scored significantly higher than LP children on vocabulary tests in both languages. The descriptive analysis showed HP families travel more and present more experiences to their children. Both groups were interested in the education of their children, but the LP families were concerned with meeting daily needs.

31. Romero, Fred Emilio. A Study of Anglo and Spanish-American Culture Value Concepts and Their Significance in Secondary Education. University of Denver, 1966. 273p. 66-11,779.

This study was designed as an effort to contribute to the rapidly growing foundation of knowledge necessary to permit educators to proceed to clearer formulation of school policy in terms of curriculum construction, teacher preparation for "deprived" schools and overall quality of opportunity for all students of Spanish descent.

It was the intent of this study to:

1. Compare Anglo-American and Spanish-American culture value concepts and to determine value configurations that are in conflict with the other in the two cultures.
2. Determine the degree of acceptance of Anglo-American culture values by Spanish-American students.
3. Determine the degree of teacher awareness of socio-cultural differences as they affect the education of Spanish-speaking students.

A review was made of literature in education, psychology, and other social sciences dealing with these two value systems to determine the value structure inherent in each system and as a basis for the development of an acculturation questionnaire and a teacher awareness scale of socio-cultural differences. The teacher awareness questionnaire was administered to a sample of eighty-two teachers. The acculturation questionnaire was administered to three-hundred forty-eight Anglo and Spanish-American students. Appropriate statistical techniques were employed to analyze and interpret the data collected.

The general scope of the literature pertaining to the Anglo and Spanish-American culture value systems was extensive. The findings reported by the writers provided information that was used as a basis for comparing the two cultural systems. Differences were found to exist and certain points of incompatibility of Spanish-American with Anglo culture lie in (1) shorter time spans of delayed gratification, (2) attitudes toward health, sanitation, and medical care, (3) fatalistic views about life and extent of individual ability to control outcomes, in contrast to external measures of achievement, (4) central importance of the family group, (5) value of education, (6) attitude toward the profit motive, (7) attitude toward economic efficiency, (8) interpretation of justice, (9) success orientation, and (10) emphasis on "competition" as a value.

The Spanish-American students at the secondary level as indicated by the data provided by the sample, demonstrated a high degree of acculturation and were complying with the dictates of the culture value system of the Anglo-American group. Furthermore, the Spanish-American students were experiencing very little culture conflict while in school.

Based on the data gathered with the teacher awareness questionnaire and upon application of standard statistical analyses, the selected sample of teachers at the secondary level were sensitive to socio-cultural differences of Spanish-American and Anglo-American students.

32. Evans, Francis Benjamin. A Study of Sociocultural Characteristics of Mexican-American and Anglo Junior High School Students and the Relation of These Characteristics to Achievement. New Mexico State University, 1969. 239p. 70-5911.

The purposes of this study were to detect some of the sociocultural differences between Mexican-American and Anglo junior high school students; to determine how the sociocultural characteristics of the Mexican-American students were related to their language background; and to ascertain how the characteristics of both groups of students were related to their achievement.

The sample consisted of 126 male and female junior high school students, 87 of whom were Mexican-American. Scales were developed from questionnaire and interview data to measure the following sociocultural characteristics: (1) language background, (2) self-concept of ability, (3) achievement orientation, (4) parental independence training practices, (5) parental achievement pressure, (6) social distance, and (7) socioeconomic status. Student achievement was measured by English and mathematics grades, Iowa Test of Basic Skills, Language Skills and Arithmetic Skills scores, and Non-Language Intelligence test scores from the California Short-Form Test of Mental Maturity.

33. Hill, Floyd Williams. A Study of the Influence of Socialization Anxiety on the Achievement of First-Grade Mexican-American Children. The University of Texas at Austin, 1969. 251p. Adviser: Claude H. Marks. 70-10,810.

This study investigated the place of socialization anxiety as an acquired drive in a hierarchy of requisites for academic success in beginning first-grade Mexican-American children. It was predicted that high levels of socialization anxiety, within normal limits, would be associated with academic success; and that the level of socialization anxiety in children would be associated with class- and culture-typed child-rearing practices. One hundred sixty first grade children were grouped according to their English-language ability and academic success, variables which were thought to reflect their acculturation level. Because of the presence of cultural deprivation and bilingualism, factor analyses were performed in an attempt to clarify the meaning of the test scores of the sample investigated. Groups were compared along the eight dimensions of language ability, visual perception, auditory perception, visual motor functioning, behavior, school attendance, school achievement, and socialization anxiety. Groups differed on various dimensions, but there were no significant differences between groups on socialization anxiety, as measured by Lambert and Bower's (1961) Self Rating of Behavior (The Picture Game). A study of the intercorrelation of variables by groups revealed that socialization anxiety tended to be uncorrelated with other variables in all groups except the group of greatest interest to the study, first-year Mexican-American children in regular first-grade programs. In that group, which showed evidences of a higher level of acculturation, socialization anxiety was significantly correlated with 15 other variables. When scores representative of the eight dimensions studied were correlated with Teacher Marks in the group of first-year regular-class Mexican-Americans, results were as follows: Auditory Perception, .86(.01); School Achievement, .79(.01); Visual Perception, .69(.01); Behavior, -.66(.01); Visual Motor, .57(.01); Language Ability, .53(.01); Socialization Anxiety, -.36(.05); and School Attendance, NS. The conclusion was drawn that: (1) socialization anxiety was measured by The Picture Game in the first-year regular-class Mexican-American group; (2) auditory perception was the variable most important in academic success; (3) socialization anxiety ranked low in a hierarchy or requisites for academic success; and (4) academic achievement in

first-grade Mexican-American children is affected more by socialization anxiety with class- or culture typed child rearing practices.

34. Shachter, Jaqueline N. The Knowledge and Comprehension of Mexican Culture Demonstrated by a Selected Group of Sixth-Grade Pupils in the United States After Studying Literary Selections in Translation. University of Pennsylvania, 1969. 330p. Adviser: T. E. McMullin. 69-21,634.

The study was designed to answer the following questions:

1. Under controlled conditions in a selected population of sixth-grade pupils in the United States, will a significant difference in knowledge of Mexican culture occur between a group using translations and a group using more traditional supplementary readings which contain few translations?

2. Is there a significant relationship between reading level in the two groups and the effect of use or non-use of translated materials?

The experiment was conducted from October 17 to November 30, 1967, with 217 pupils in three elementary schools in the Lower Merion Public School District of Pennsylvania. Eight heterogeneous sixth-grade classes were divided into two randomly-drawn groups of four classes each. Group 1 emphsized translations and group 2 stressed supplementary readings. Aside from this major difference, the social studies units on Mexico were similar in the two groups, requiring the same textbooks and identical worksheets, films, trips, and programs.

The translations used by group 1 were made of appropriate selections from the Mexican government's book list for fourth grade, since the homeland is studied in that grade in Mexico. Some 324 literary selections were examined and 33 were used in the anthology of translations.

The effectiveness of the translations was judged by the performance of pupils in group 1 on a posttest, "Test on Mexico," compared to the performance of pupils in group 2 who read other books on Mexico. A different form of the "Test on Mexico" was used before instruction as a pretest. Facts needed to answer all test questions were in the reading materials of each group.

Mean posttest scores on the "Test on Mexico" became the criterion variable in factorial analysis of covariance involving the following factors: treatments (two groups); sex (boys and girls); and reading achievement (three levels based on scores from the Stanford Achievement Paragraph Meaning Test).

Covariates were used to adjust mean posttest scores to provide the benefits of matching treatment groups without the difficulty of arranging the matching. The three covariates retained throughout the study were: each child's raw score on the "Test on Mexico;" socio-economic standing of the head of each household; and principal's rating of each teacher.

The difference between the adjusted posttest means of the treatment groups favored group 1 and was significant at the .01 level.

The differences among reading levels in mean posttest scores was also significant at the .01 level. This resulted from the determination of pupils' levels by their reading grade scores. The treatment involving translations was better for both sexes at all reading levels but not to a significant degree.

The hypotheses which prompted this study and conclusions concerning them are as follows:

H1. The average adjusted posttest score is not significantly different in the population represented by group 1 from that in the population represented by group 2. This hypothesis is rejected at the .01 level.

H2. There is no significant relationship between initial reading level and the effects of differing treatments for groups 1 and 2. This hypothesis is accepted at the .01 level.

This study has shown the effectiveness of particular translations in helping pupils gain information about Mexican culture. Translations concerning other lands might further extend inter-cultural knowledge and understanding.

35. Arndt, Richard Werner. La Fortalecita: A Study of Low-Income (Urban) Mexican-Americans and the Implications for Education. The University of New Mexico, 1970. 260p. 71-9266.

The purpose of this study was to examine the life-style common to La Fortalecita, a low-income Mexican-American community comprising approximately 300 inhabitants and located within an urban population center exceeding 300,000, and to discuss certain educational implications arising from the findings.

Participant observation was the field research technique employed to collect data relevant to the community under study. Three resident families, chosen for possibilities of in-depth and continuous observation, provided the principal research focus. The descriptive and interpretive material presented was restricted to behavior observed during a period of approximately one year. Due to limitations imposed by population size, and rather unrefined sampling and data collection procedures, no attempt was made to attach findings to larger populations.

Particular attention was given to the compatibility of La Fortalecitan attitudes and behavioral patterns with those formal educational provisions available to community children. Additionally, the ways in which this low-income population relates to externally formalized agencies (e.g., church, welfare, and police) which impinge upon their daily routine was examined.

The investigation of La Fortalecitan behavior revealed a broad subcultural pattern in varied states of harmony and disharmony with the norms of the dominant culture. The cyclical ramifications of poverty-induced insulation principally accounted for the failure of the observed population to integrate smoothly with the larger society. La Fortalecitans personified differing, yet acute degrees of anxiety with respect to acculturation and assimilation, and are not easily classified within the highly differentiated American social framework. However, the essential features of the human complex under analysis seemed to be those of the lower-class American poor, as distinguished from the lower-class Mexican-American poor. Although prominent La Fortalecitan life-style traits are ethnically colored, these traits seemed to be marginal and compensative, in that they were stimulated by more basic factors of class.

The unreceptivity of the La Fortalecitan child to self-directed classroom learning appeared to speak for a dual initial classroom emphasis, namely, that of structure and direction, in order to underline the seriousness of the educational task, and non-threatening instruction, as a means of providing critically needed measures of self-confidence.

It was proposed that an educational team of teaching specialists, exhibiting distinctive sex-role and ethnic characteristics, and disposed toward providing positive means of interaction with the low-income parent, might go far toward meeting the instructional needs of the La Fortalecitan child.

The findings imply that the appropriate and indeed ethical function of the dominant cultural school must be to enable the student through inquiry, comparison, and problem-solving to create a valued life-style of his own . Hence, it was suggested that the educator teach role-related behavior as he would the practice of specific skills, thereby allowing the student to cope with behavioral patterns within the pragmatic and concrete framework of a clearly delineated role, and allowing him to attach a value to these patterns through freely determined priorities and choices.

36. Del Campo, Philip E. An Analysis of Selected Factors in the Acculturation Process of the Mexican-American Elementary School Child. United States International University, 1970. 199p. Adviser: Thomas A. MacCalla. 71-6043.

The purpose of this study was to explore aspects of the acculturation process and the socio-environmental factors that affect the acculturation of Mexican-American children. Of primary concern was an answer to the question, "What is acculturation and what is the process that the Mexican-American child must experience in order to attain it?" A survey of the literature revealed that in order for a Chicano child to be "acculturated" he must embrace some or all of the values, folkways, language, attitudes, and beliefs of the Anglo. In order to test this culture construct, a standardized value profile and an attitudinal survey were administered and selected demographic factors were collected to compare groups of Anglo and Chicano children. The major findings are as follows: A significant difference found in the value profile suggested that the Mexican-American group (MAG) scored higher than the comparison group of Anglo children (AAG) in the Religious and the Political (competition) value areas in two of the three school districts surveyed. The latter finding is contrary to the popular belief that the Chicano child is not competitive. Indications are found in a comparison of the data in the value profile and the attitudinal survey that there is an inverse relationship between the level of acculturation attained by the Mexican-American group and the tendency on the part of the teachers and school administrators surveyed to view these children with negative stereotypes.

An analysis of the demographic data revealed there is a direct relationship between the years of parent education attained, language facility, and time in the United States on one hand, and level of occupation, on the other. The demographic data also revealed that there is an inverse relationship between the number of children and the occupational level of the parent.

37. Gallegos, Ruben. A Comparative Study of Achievement and Adjustment of Mexican-American Migrant and Non-Migrant Children in the Elementary School. East Texas State University, 1970. 123p. Adviser: Dr. Donald R. Coker. 71-8641.

The purpose of this study was (1) to determine if there was a significant difference in academic achievement and social adjustment mean scores between Mexican-American migrant and Mexican-American non-migrant children, and (2) to investigate the special help provided to the migrant children in comparison with the non-migrant children in terms of achievement and social adjustment.

The children selected for this study were fifty Mexican-American migrant children enrolled in the fifth grade at the School for Migrants and fifty Mexican-American non-migrant children enrolled in the fifth grade at Resaca Elementary School in the Brownsville Consolidated Independent School District at Brownsville, Texas.

The children participated on the basis that Spanish was the primary language spoken in their home and on their low socio-economic level. The proximity of Mexico insured a continued flow of Mexican culture and necessitated the use of the Spanish language.

The experimental group consisted of fifty fifth grade Mexican-American migrant children enrolled in a six-month school program in the School for Migrants at Brownsville, Texas. The control group consisted of fifty fifth grade Mexican-American non-migrant children enrolled in a nine-month school program in the Resaca Elementary School at Brownsville, Texas. One hundred children were pre-tested by the Form W of the Stanford Achievement Test and the Scholastic Testing Service Junior Inventory. In both cases the test directions were given in Spanish and English. All tests were scored and then interpreted, and these scores plus other pertinent data were treated statistically by the use of 805 International Test Scoring Machine and a Victor calculator.

The experimental situation was designed to test the following null hypotheses:

Hypothesis 1. There will be no significant difference between the achievement mean scores of Mexican-American migrant and Mexican-American non-migrant children as measured by the Stanford Achievement Test.

Hypothesis 2. There will be no significant difference between the social adjustment mean scores of Mexican-American migrant and Mexican-American non-migrant children as measured by the Scholastic Testing Service Junior Inventory.

Findings:

Hypothesis 1 was accepted by the comparison of the mean scores derived by the Stanford Achievement Test. An analysis of covariance of the data was calculated and then subjected to a "t" test which proved to be not significant at the .01 level of confidence.

Hypothesis 2 was rejected by the results of the experiment and by the comparison of the mean scores derived by the Scholastic Testing Service Junior Inventory. An analysis of covariance of the data was calculated and then subjected to a "t" test which proved to be significant at the .01 level of confidence.

Conclusions reached showed that Mexican-American migrant children scored at the same grade level as Mexican-American non-migrant children as indicated by the results of the Stanford Achievement Test. The Mexican-American non-migrant children scored lower than Mexican-American migrant children as indicated by the results of the Scholastic Testing Service Junior Inventory. These results thus support the continuation of the Texas Project for the Education of Migrant Children.

38. Linton, Thomas Harvey. Sociocultural Characteristics, Alienation from School, and Achievement Among Mexican-American and Anglo Sixth Grade Students. New Mexico State University, 1970. 194p. Adviser: Dr. Darrell S. Willey. 71-2872.

The purposes of the research described in this study were to detect selected sociocultural differences between Mexican-American and Anglo sixth grade students, to determine the relationship of these characteristics to students' alienation from school, and to relate school achievement to sociocultural characteristics and alienation from school.

Data were obtained from a total sample of 333 Anglo and Mexican-American sixth grade students (173 Anglo students and 160 Mexican-American students) from sixteen elementary schools in Las Cruces, New Mexico. The Piers-Harris Concept Scale was used to measure student self-concept. Questionnaire data were obtained on four sociocultural characteristics (language usuage, activism, occupational primacy, and integration with relatives) and four dimensions of alienation from school (isolation, normlessness, powerlessness, and self-estrangement). Student achievement was measured by teacher-assigned grades in reading, arithmetic, and social studies.

Null hypotheses tested in the study were derived from a theoretical model of social interaction set forth by Talcott Parsons in his theory of action. Each of the six null hypotheses were rejected on the basis of the findings.

Hypothesis one was concerned with differences between Anglo and Mexican-American students on the four sociocultural characteristics. Separate analyses of variance performed on each variable indicated that Mexican-American students had a more dependent relationship with relatives than did Anglo students. Additional findings were that high socioeconomic level students, when compared to low socioeconomic level students, had (1) a higher self-concept; (2) an activistic, future-time orientation; and (3) a more independent relationship with relatives.

Hypothesis two, dealing with differences between Anglo and Mexican-American students on the "alienation from school" scales, was also tested using separate analyses of variance. The results indicated that Mexican-American students were more isolated from the school environment (isolation, component I), and more likely to consider impersonal forces as important factors in their school achievement (powerlessness, component II). An additonal finding was that high socioeconomic level students, when compared to low socioeconomic level students,

considered their school experiences worthwhile (self-estrangement, component II), did not consider impersonal forces important factors in their school achievement (powerlessness, component II), and had low total alienation scores.

Hypotheses three and four, dealing with the relationship between the sociocultural and alienation variables, were tested using separate correlation analyses for Anglo and Mexican-American students. Significant correlations were found between each of the sociocultural variables and two or more of the alienation scales for each group. However, the correlation pattern depended upon group ethnicity.

Hypotheses five and six were concerned with the relationship of the sociocultural variables and alienation variables to school achievement. Separate correlation analyses for Anglo and Mexican-American students revealed a number of significant correlations between these scales and the achievement measures. Furthermore, the correlation patterns were similar for the two groups.

Separate stepwise linear regression analyses were conducted for Anglo and Mexican-American students on each set of teacher-assigned grades. The best predictor scales for Mexican-American students were (1) socioeconomic level; (2) powerlessness, component II (relation of impersonal forces to achievement); and (3) self-estrangement, component II (worthiness of school activities). For Anglo students the most consistent predictor scales were (1) socioeconomic level, (2) integration with relatives, (3) activism (an activistic, future-time orientation), and (4) self-concept.

Conclusions derived from the results of this study are summarized in the following four points:

1. Ethnicity accounts for less of the variation in sociocultural characteristics than does socioeconomic level. Low socioeconomic level Anglos and Mexican-American appear to be part of a larger culture of poverty.
2. Both ethnicity and socioeconomic level contribute to alienation from school.
3. Student ethnicity is a factor in the relationship between sociocultural characterisitics and alienation variables.
4. The relationship of sociocultural characteristics and alienation variables to school achievement is similar for Anglo and Mexican-American students.

39. Tindall, Lloyd Wilbur. Receptivity of Mexican-American and Anglo Rural Disadvantaged to Educational Programs. Michigan State University, 1971. 215p. 72-16,526.

Purpose. The primary purpose of this study was to determine the willingness of the rural disadvantaged to participate in educational programs. More specifically, the following objectives were sought: (1) To determine if the Anglo and Mexican-American ethnic groups have a different degree of willingness toward participation in educational programs. (2)

To determine if welfare and non-welfare recipients have a different degree of willingness toward participation in educational programs. (3) To determine if occupational considerations affect the willingness of rural disadvantaged to participate in educational programs. (4) To determine if personal, educational, and social considerations affect the willingness of rural disadvantaged to participate in educational programs. (5) To determine if environmental considerations of the training classes affect the willingness of rural disadvantaged to participate in educational programs. (6) To determine if self-perceptions affect the willingness of rural disadvantaged to participate in educational programs. (7) To determine if rural disadvantaged have different degrees of willingness toward participation in educational programs in relation to the variables of age, residence, miles to high school, miles to community college, educational achievement, number of children, income, size of shopping center, and length of time out of the migrant labor stream.

Method. A questionnaire was designed to measure the willingness of the rural disadvantaged to participate in educational programs. The questionnaire was administered by personal interview to 68 Anglo and 57 Mexican-American rural disadvantaged. The sample was stratified according to the following criteria: sex, age, household status, and income. Half of each ethnic group was receiving welfare, and half was not receiving welfare.

An attempt was made to identify barriers which might prevent the rural disadvantaged from participating in educational classes. Possible barriers included occupational considerations: personal, educational, and social considerations; self-perceptions; and environmental consideration of the training class. The effects of personal and family factors upon the willingness to participate in educational programs were also studied.

Comparisons were made between ethnic and welfare groups, including the use of the multivariate analysis of variance statistical technique.

Findings. The Mexican-Americans were more willing to participate in educational classes than Anglos. However, both Mexican-American and Anglo rural disadvantaged had a desire to participate in educational programs to get a job or a better job.

There were no differences in the willingness of the rural disadvantaged to participate in educational classes on the basis of the welfare status of the respondents. Both Mexican-Americans and Anglos on and off welfare desired to participate in educational programs that would help them get a job or a better job.

Occupational considerations relating to prospective employment of the disadvantaged, affect their willingness to participate in educational training classes. The rural disadvantaged were willing to participate in educational classes that pertained to their personal, educational, and social welfare. The rural disadvantaged tend to perceive themselves favorably in regard to their ability to be hired for a job, run their own business, or be the leader of others. Certain environmental considerations relating to the way classes are taught will apparently affect the willingness of the rural disadvantaged to attend educational

training classes.

The age, residence, miles to high school, educational achievement, number of children, income, size of town for shopping, and time lived in Michigan do not affect the willingness of the rural disadvantaged to participate in educational programs. The rural disadvantaged that lived ten miles or less from a community college or university were more willing to attend classes than those living over ten miles.

MEXICAN-AMERICANS

Parental Influences

40. MacMillan, Robert Wilson. A Study of the Effect of Socioeconomic Factors on the School Achievement of Spanish-Speaking School Beginners. The University of Texas, 1966. 272p. Adviser: Thomas D. Horn. 67-3327.

In this study a model of inquiry was designed to test the correlation between certain socio-economic variables and the school achievement of Spanish-speaking first grade children. A similar model tested the correlation between socio-economic variables and attendance in first grade. Attendance patterns were also investigated for Anglo, Negro, and Mexican-American first grade children using temperature and precipitation as concomitant variables.

The socio-economic variables of parent's occupation, pre-school experience, family size, family organization, and pupil's sex were analyzed as predictors of achievement, and of attendance. IQ and pretest scores were also analyzed for their significance as predictors of achievement. Ethnic group membership, Anglo, Negro, or Mexican-American, also was analyzed for significance as a predictor of attendance. Attendance was further analyzed in relation to socio-economic status within the Anglo and Mexican-American ethnic groups.

Subjects used in this study were first grade students from San Antonio (Texas) Independent School District. For the analyses of socio-economic variables as predictors of achievement and attendance, 305 Mexican-American children were used. These children came from the lowest socio-economic area of San Antonio. Five Mexican-American schools (one categorized as middle class, and four as lower class) four Negro schools (all classified as lower class) and three Anglo schools (one classified as being upper class, one middle class, and one lower class) were used to test the correlation between ethnic group membership and attendance.

Results of the analyses,using linear regression techniques, are as follows: (1) The independent variables of parent's occupation, the child's school attendance, preschool experience, IQ and pretest scores were found to be significant predictors of achievement for this population. Combined, the variables of parent's occupation, family size and organization, preschool experience, pupil's sex, and school attendance were more significant as predictors of achievement than was IQ. (2) None of the above independent variables proved to be significant as predictors of attendance. Pupil's sex, family organization, and parent's occupation were the three variables closest to reaching significance. (3) The analysis of attendance in relation to ethnic group membership, using temperature and precipitation as concomitant variables, indicated that weather conditions have a more negative effect

on the attendance of the Mexican-American and Negro than on the Anglo. This adverse effect is probably due to the lack of proper clothing and medical care because of a low socio-economic status. However, when temperature and precipitation were held constant, the Mexican-American's expected school attendance was actually higher than the Anglo's and Negro's, indicating a positive attitude toward education.

In order to more fully describe the handicaps facing the Mexican-American child in school, a demographic study was done on those of Spanish-surname in the Southwest. The results indicate the Mexican-American to be not only socio-economically below the Anglo and Negro groups, at the present time, but also in danger of falling further behind in the future.

41. Burruel, Jose Maria. A Study of Mexican-American Tenth-Grade Students Showing the Relationship Between Parental Attitudes and Socio-Economic Level. Arizona State University, 1970. 171p. 71-13,241.

The purpose of this study was to determine the attitudes of parents of tenth-grade Mexican-American students of the Phoenix Union High School system as related to the socio-economic level of the parents. Specifically, the purpose was to determine the attitudes of parents of tenth-grade students and parents of tenth-grade dropouts toward: (1) the schools, (2) certain defined groups within the school, (3) school practices, and (4) their children.

The Mexican-American population of 901 (150 dropouts, 751 other) was classified by sex, socio-economic level, and school status. Forty-six dropouts and fifty-four students who remained in school were included for interviewing by random selection.

The socio-economic level was determined from the index of socio-economic level developed at the Institute for Developmental Studies in New York City. The interview schedule consisted essectially of The Purdue Attitude Scale and the Leary Interpersonal Check List which were translated into Spanish.

The data were analyzed by using the three-way analysis of variance, where factors were school status, socio-economic level, and parents. F-statistics were tested at the 0.05 and 0.01 levels of significance. In addition to the analysis of variance, a discriminant analysis was accomplished using attitude scores as predictors of school status. The analyses resulted in several conclusions.

Parents of tenth-grade Mexican-American children have positive attitudes toward the elementary school, high school, junior college and college. However, parents of tenth-grade Mexican-American students who remain in school during the tenth-grade have a more positive attitude toward the elementary school than parents of tenth-grade Mexican-American students who drop out of school during the tenth-grade, providing these parents are in the lower socio-economic level.

The attitudes of parents of tenth-grade Mexican-American students toward the high school teachers, high school students, high school administrators, and high school counselors are positive and independent of school status and socio-economic level.

Parents of tenth-grade Mexican-American students have positive attitudes toward all school practices with the exception of dropping out, which they consider undersirable regardless of school status or socio-economic level. Within the upper socio-economic level parents of Mexican-American tenth-grade students who remained in school have more positive attitudes toward giving homework than parents of students who drop out of school during the tenth-grade, while the converse is true for parents of Mexican-American tenth-grade students in the lower and middle socio-economic levels.

Parents in the upper socio-economic level who have children who remain in school during the tenth-grade have a more positive attitude toward PTA meetings than the parents of tenth-grade Mexican-American students who drop out of school during the tenth-grade.

In general, parents of tenth-grade Mexican-American students perceive and expect their children's behavior to be more domineering than passive and more affectionate than hostile.

Parents of tenth-grade Mexican-American children who remain in school during the tenth-grade perceive their children as more affectionate than parents of tenth-grade Mexican-American students who drop out of school during the tenth-grade, providing these parents are in the upper socio-economic level.

Disregarding the effect of socio-economic level and parentage, and considering all variables, the pattern of parent's attitudes which best distinguishes between the tenth-grade Mexican-American students who remain in school rather than dropping out during the tenth-grade is that in which the attitudes toward the high school and college as institutions are more positive, attitudes toward high school teachers as a defined group are more positive, attitudes toward PTA meetings are more positive, attitudes toward standardized testing are less positive, and perceptions of behavior are more domineering than passive.

Several relationships between parent's attitudes and school status and socio-economic level were uncovered in the present study. Pertinent conclusions were drawn from the findings which suggested recommendations for research and application. Recommendations include additional studies to reveal causes and suggestions for use by administrators, counselors, and teachers in order to maximize the educational environment for Mexican-American students as well as other students.

42. Cain, Mary Alexander. A Study of Relationships Between Selected Factors and the School Achievement of Mexican-American Migrant Children. Michigan State University, 1970. 138p. 71-2043.

This study investigated whether the factors of age, sex, parent-child

relations, or modes of response to problems of frustration and failure, were related to the school achievement of Mexican-American migrant children. Typical patterns of parent-child relationships, as perceived by these children, and typical means employed in their problem-solving were also investigated.

Subjects of the study were 58 Mexican-American migrant boys and girls, ranging in age from seven through 13, who attended a summer school program in southwestern Michigan.

Standard scores in reading and arithmetic obtained by the school on the Wide-Range Achievement Test were used as measures of achievement. Trend analyses were made to determine whether standard achievement scores dropped with age. Analysis of variance was employed to discover possible differences in achievement between boys and girls. Perceptions of parent-child relationships were measured by the Roe-Siegelman Parent-Child Relations Questionnaire, and various child-rearing practices were compared by rank analysis of variance. A stepwise multiple regression analysis was used to discover possible relationships between patterns of child-rearing and achievement. Problems of frustration and failure related to the Mexican-American migrant child's life were introduced in five incomplete stories. Children's story completions were categorized by three judges, and chi-square analysis was used to determine whether modes of problem-solving were related to school achievement.

Arithmetic achievement equalled or excelled reading achievement at each age level. All achievement decreased beyond the nine-year-old level. While a quadratic relationship between reading scores and age proved not significant, a linear relationship between arithmetic scores and age was significant at the .01 level. No difference was discerned between the achievement of boys and girls. Parent-child relations were perceived as significantly loving and protecting. The child-rearing dimensions of rejection and neglect were significantly less prevalent than other dimensions. Children saw themselves as more rewarded than punished. Mothers were seen as more protecting, more demanding, more rewarding, and more punishing than fathers. Relatively lower reading and arithmetic scores were significantly related to mothers' rejection, neglect, and casualness. Fathers' love was positively related to arithmetic achievement, while their casualness was negatively correlated with reading and performance.

Forty-one per cent of children's story completions are goal-oriented, gratification-deferring, "middle-class" solutions. Thirty-four per cent of the solutions employed withdrawal from the problem. Appeals to authority, use of fantasy, and anti-social aggression made up only 25 per cent of the total responses. Despite the notion that typically middle-class modes of problem-solving tend to produce school success, the solutions produced by the subjects of this study bore no relationship to their achievement.

The findings of the study suggested desirable adult education practices, and the need for further research in the area of problem-solving. The discovery of currently acceptable child-rearing practices and typical "middle-class" problem solving among the Mexican-American migrant families of this sample emphasizes the need for further research to explore correlates of achievement.

43. Stokes, Vernon Dee. Selected Value of Seventh-Grade Mexican-American Students. Texas Tech University, 1970. 159p. Adviser: Dr. Weldon E. Beckner. 71-9669.

Purpose

The major purpose of this study was, through the identification of pertinent values, to assist school personnel in understanding Mexican-American students and the possible conflict of value systems which these students face. It was further desired that through this understanding the educational experience of Mexican-Americans might be made more meaningful.

Procedure

The value concepts studied were (1) equality, (2) the importance of the individual, (3) empathy, (4) government, and (5) freedom. The variables included in the study were sex, having failed a grade, participation in school activities, family size, extended family, parental educational level, parental birthplace, church affiliation, area of residence, socioeconomic class, University Interscholastic League school classification, geographical location, and school attended.

The sample used in this study included 347 seventh-grade Mexican-American students from 10 public school systems on and along U.S. Highway 87 in the general Panhandle-South Plains region of Texas. Two schools from each University Interscholastic League classification were paired. The paired schools were selected with as much geographical separation as possible.

A semantic differential was used as the instrument to collect the data. The instrument was scored on a continuum from one to five. A score of 1.00 indicated a strongly negative response, 3.00 a neutral response, and 5.00 a strongly positive response. Mean scores were computed for (1) each student on all five concepts, (2) each concept, (3) each participating school, and (4) each group according to the variables. T-tests were used to determine significant differences in responses. A correlation matrix was used to determine possible relationships between variables.

Findings

1. Students who failed a grade scored significantly lower, or more negatively on all value concepts.
2. Students who participated in school activities scored significantly higher on all concepts except government. This variable had a negative correlation with twelve other variables.
3. Students living in an extended family situation had lower scores on the concepts of empathy and the importance of the individual.

4. The higher the parental educational level the more positive were the responses to the value concepts. Significant differences existed between high school education and all other levels of education.

5. Students who had parents with one each being born in Mexico and the U.S.A. scored significantly lower on the concepts of freedon and government as compared with students whose parents were born in the same country.

6. The higher the socioeconomic class the more positive were the responses to the value concepts. The lower-middle class scored consistenly higher than did the two lower classes.

7. The mean scores indicated the following value concepts among the sample: equality--a mean score of 3.98 indicated positive agreement with the concept; the importance of the individual--a mean score of 3.98 indicated positive agreement with the concept; empathy--a mean score of 3.91 indicated positive agreement with the concept; government--a mean score of 3.74 indicated minimal positive agreement with the concept; freedom--a mean score of 4.21 indicated a more than average positive agreement with the concept.

8. Schools in the south half scored more positively on all concepts than did those in the north half. Proximity to heavier areas of Mexican-American population tended to give a more positive response to the value concepts.

44. Taylor, Marie Elizabeth. Investigation of Parent Factors Affecting Achievement of Mexican-American Children. University of Southern California, 1970. 199p. Adviser: Professor Martin. 70-13,673.

The purpose of this study was twofold: (1) to determine whether rural Mexican-American working class parents differed significantly from rural Anglo working class parents and rural Anglo middle class parents on value orientation patterns and attitude towards the value of education, and (2) to determine to what degree these patterns had an influence upon the school achievement of their third and fourth grade children.

The investigation on the parent sample was conducted by means of two survey instruments: (1) the Value Orientation Schedule, sections on Time, Activity, and Man-Nature, English and Spanish version; (2) the Minnesota Survey of Opinions-Education Scale, English and Spanish version.

The student sample was administered the Comprehensive Test of Basic Skills as a measure of school achievement.

The analysis of data on the parent sample indicated that there were no differences between the groups on the Value Orientation Schedule as related to Time, Activity, and Man-Nature items. A significant difference at the .0002 level was found between the parent groupings on the Minnesota Survey of Opinions-Education Scale which indicated a difference in the groups in their attitude towards the value of education.

The results of applying a two-way analysis of covariance, holding

student's I.Q. constant, to parent's scores on the Minnesota Survey of Opinions-Education Scale and student's scores on the Comprehensive Test of Basic Skills indicated a significant difference at the .01 level between ethnic groupings with no significant difference between scores on the Minnesota Survey of Opinions-Education Scale and student's achievement scores on the total battery. A significant interaction between parent's attitude towards the value of education and student's achievement was found at the .05 level on the Reading section of the Comprehensive Test of Basic Skills. In investigating this interaction the area of difference was pin-pointed to the Reading Comprehension scores. This indicated that there was a direct effect of parent's attitude towards the value of education and the child's achievement in reading comprehension. The effect was a positive relationship for the Anglo middle class and the Mexican-American working class group but an inverse relationship for the Anglo working class group.

Conclusions. (1) Ethnicity and socioeconomic status appear to influence parents attitude toward the value of education while sex of the parent appears to have no influence upon this factor. (2) Ethnicity, socioeconomic status and sex does not appear to influence value orientations towards Time, Activity, and Man-Nature relationships. (3) Ethnicity and socioeconomic status appear to affect the child's score on a test of intelligence. (4) Ethnicity and socioeconomic status appear to affect total achievement as measured by a test of achievement, but parent's attitude toward the value of education does not appear to affect the overall academic achievement of the child. (5) Ethnicity and socioeconomic status and parent's attitude towards the value of education interact to affect the child's achievement in the area of reading, particularly reading comprehension.

Recommendations. (1) School systems need to provide added services to Mexican-American children in the area of language development in order to equalize their achievement capabilities with their performance level. (2) School systems can capitalize upon the positive attitude of Mexican-American parents towards the value of education by involving them to a greater extent in the school program.

45. Brawner, Marlyn Ray. Factors in the School Completion Rates of Mexican-American Children in Racine, Wisconsin. The University of Iowa, 1971. 149p. Adviser: Professor Robert Belding. 71-30,403.

This study compares answers given by immigrant Mexican-American parents to questions about their educational aspirations and values in 1959-1960 with the number of grades completed and the amount of age-grade retardation of their children in 1970.

Data was obtained from the questionnaires and from school records

in Racine, Wisconsin. Neither values nor aspirations were found to be significantly related to performance. However when the achievement of this group was compared to a matched sample from one of the home communities from which the immigrants had come, the Racine group scored consistently higher. The reason for this is believed to be the superior community resources available in the northern industrial site.

46. Byrne, David Ronald. Mexican-American Secondary Students: Salt Lake City School District. University of Utah, 1971. 214p. Adviser: Michael J. Parsons. 72-519.

This study aimed at beginning the development of a useful and substantive body of information pertaining to the community of Mexican-American students in Salt Lake City, school district. It aimed specifically toward finding a truthful dropout rate, making comparisons between Mexican-American dropouts and other Utah dropouts, collecting and analyzing comparative data on Mexican-American dropouts and non-dropouts relative to school performance, family and home conditions, and aspirations and self-assessment.

The study's first segment reviews literature extensively relevant to the questions of Mexican-American students and the public schools. From the review, a list of assumptions are set out as to what one might expect to find if the school life of Mexican-American students in Salt Lake City parallels that of Mexican-American students in the southwestern, United States.

The second segment reports the findings of a longitudinally designed study of Mexican-American secondary school students in Salt Lake City school district. Raw data for the analysis came from the following sources: cumulative school histories, SIS-Confidential Student Questionnaire Level II, Dropout and Stay-in Survey forms, and personal interviews. The study group was drawn from all of the Spanish-surname students registered in the Fall of 1965 in seventh grade of Salt Lake City schools. When students who had transferred out, graduated early, or died were subtracted, the study group totaled one hundred and seven students. Data were collected from records beginning in the seventh grade and through the first semester of the twelth grade, January, 1971.

Drawing upon the specific findings reported, a profile for each of the following was constructed: the average Mexican-American male non-dropout, the average Mexican-American male dropout, the average Mexican-American female non-dropout, the average Mexican-American female dropout.

The study results led to two major conclusions: (1) Mexican-American spokesmen and parents speak from a substantive foundation when they question the quality of education their children receive in Salt Lake City school district and (2) the secondary school performance of Mexican-American students in Salt Lake City school district generally

parallels the extraordinary low school performance of Mexican-American children in the southwestern United States. Several more specific conclusions were offered. They may be summarized as follows: (a) Mexican-American girls tend to have a better school experience than Mexican-American boys; (b) the dropout rate for Mexican-Americans equals forty-five percent over the secondary school years, (c) although Mexican-American parents tend to have better socio-economic status and level of educational attainment in Salt Lake City than in the southwest, Mexican-American students measured approximately the same in educational evaluation; (d) dropouts tended to be older and to have much (sic) more negative attitudes toward school than non-dropouts, and (e) Mexican-American students who stay in school do not seem to rate themselves below other students in school abilities, but Mexican-American dropouts rate themselves very low in these school related capacities.

The study concludes with suggestions for further research and with the suggestion that Salt Lake City school officials move emphatically and quickly to eradicate a situation which currently does little to meet the educational needs of Mexican-American students.

47. Harmon, Genevieve Coon. Participation of Mexican-American Parents in School Activities at Kindergarten Level in Poverty Areas of Los Angeles. University of Southern California, 1971. 166p. Adviser: Professor Carpenter. 71-21,461.

The purpose of this study was threefold: (1) to examine the school participation of Mexican-American parents of kindergarten children selected from poverty areas of Los Angeles, where one group of children did and the other did not attend preschool, (2) to learn whether the two parent groups were comparable according to selected demographic variables, and (3) to determine whether a relationship existed between ten selected variables and behaviors which influenced parent involvement in school activities.

Nine elementary schools from poverty areas of Mexican-American communities in Los Angeles were selected. Principals chose the kindergarten classes and invited parents to participate in study-related interviews. Sixty parents were interviewed in Spanish, based on a three-part questionnaire containing questions about parental school involvement, personal information, and occurrences which affected their participation.

Findings. Parents in the preschool attendance group were represented more often in the following categories than were nonpreschool parents: (1) as regular classroom helpers, (2) as active members in parent groups, and (3) as volunteer workers.

Parents in the preschool and nonpreschool attendance groups were comparable in these respects: (1) Almost half the parents in both groups were born in Mexico. (2) Both parents were present in most homes of both groups. (3) Median weekly incomes of the preschool and nonpreschool groups were $117.50 and $101.50, respectively. (4) The majority of wage earners in both groups were regularly employed. (5) Factory worker was the most common employment category for both groups.

(6) Use of a mixture of Spanish and English in the home, or Spanish alone, was indicated by all but five preschool and by all but six non-preschool attendance families. (7) Both parents were most frequently represented in the tenth-twelfth grade, school attendance category. (8) College graduation was the expectation level of parents for children in both groups. (9) Circumstances restricting school participation were categorized as personal, school, and family.

The favorable behaviors influencing school participation were: (1) actions of school personnel, (2) actions of other adults, and (3) independent actions of parents. The preschool group indicated teacher contact as the most frequent favorable behavior, while favorable responses from the nonpreschool group were slight.

Conclusions. (1) Differences in demographic variables between the two parent groups could not account for differences in school participation. (2) Economic conditions found in depressed areas impose restrictions which are inimical to parent participation outside the home. (3) Teacher behaviors influenced the kind of parental involvement in school activities, and (4) Without continued contact and encouragement from the school, parents with a minimum of formal education participate little in school activities.

Recommendations. (1) Principals and teachers should plan regular visits and conduct home instruction for parents who cannot come to school to help their children. (2) Elementary school and adult education personnel should develop a parent-training program designed to prepare parent volunteer workers. (3) Educators and community leaders should encourage local colleges and universities to establish classes in the sociology of education for teachers whose preparation did not include such a course. (4) A longitudinal study should be conducted to determine whether parent participation from preschool through sixth grade increases academic achievement, and (5) A replication study should be undertaken using a larger sample when the 1970 census figures are available.

MEXICAN-AMERICANS

Comparisons with Other Groups

48. Parsons, Theodore William Jr. Ethnic Cleavage in a California School. Stanford University, 1965. 443p. 66-2602.

Ethnographic and sociometric procedures have been used to study ethnic cleavage in a selected California community of Anglo and Mexican-Americans. The study-community is a village of approximately 1800 people located in the center of a rich agricultural region near the central California coast. About 45% of the villagers are Anglos and 55% Mexicans. Within the context of community patterns, special attention was given to the nature and development of ethnic cleavages between Anglo and Mexican-American children (grades K through 8) both within and without the school. Participant observation and interview techniques were employed in the community over a period of three years; some forty days were spent in observing the school. A sociometric instrument was administered to 491 of 591 pupils in the school.

The data indicate that a) there is a dramatic, almost total, cleavage between Anglo and Mexican-American adults, b) this cleavage is supported by sets of mutually reinforcing stereotypes held by members of the two groups, c) the adult patterns are reflected within the school and reinforced by certain school programs, d) cleavage is marked in all grades and accelerates rapidly after the third grade, e) there is 90% cleavage by the 6th grade and 100% by the mid-eighth grade, f) Anglos at all levels have greater in-group self-preference than do Mexican-Americans, g) cleavage is greater among girls than boys, h) where prestige factors are involved, Anglos show extreme in-group preference and Mexicans show high out-group preference. Data on Anglo stereotypes show that these are strongly held by elementary school-age children. Results also indicate that Mexican pupils have assumed certain aspects of the Anglo stereotypes.

Conclusion: the school in this and similar South-western communities is an important contributor to the maintenance of the ethnically differentiated social structures of these communities.

49. McDowell, Neil Allen. A Status Study of the Academic Capabilities and Achievements of Three Ethnic Groups: Anglo, Negro, and Spanish Surname, in San Antonio, Texas. The University of Texas, 1966. 186p. Adviser: Thomas D. Horn. 67-3322.

This study compares intelligence, general ability and reading achievement of children from three ethnic groups; Anglo, Negro, and Spanish-surname. The children served as control groups for an experimental study by Horn.

Intelligence and general ability were measured by pretest. A post-test measured reading achievement. The Goodenough-Harris Draw-A-Man Test was used as a test of intelligence, the Inter-American Test of General Ability was used as a measure of general ability and the Inter-American Reading Level I was used to measure reading achievement. Significant differences favoring Anglo children were found to exist among the ethnic groups in two of the three areas: intelligence and general ability. Differences were also found to exist in intelligence between the Negro and Spanish-surname children, favoring the Spanish-surname children. When reading achievement was measured while holding age, intelligence and pretest score constant, interaction occurred among groups which prohibited further analysis.

An analysis subsidiary to the main study revealed that when the pretest (general ability) and post-test (reading achievement) scores of the children were analyzed according to the child's social class there were significant differences among the social classes, generally favoring the upper class children. There was, however, a discrepancy in scoring when the middle-lower class children scored highest on the pretest and next to lowest on the post-test.

50. Steen, Margaret Trotter. The Effects of Immediate and Delayed Reinforcement on the Achievement Behavior of Mexican-American Children of Low Socio-Economic Status. Stanford University, 1966. 70p. 66-8594.

Considerable attention is given today to possible means of counteracting the consistently lower academic level of Mexican-American children of low socio-economic status. The distinctive socialization of children from this socio-economic and ethnic group poses a barrier to academic achievement if the school is organized essentially in terms of middle class values. This study examined the difference in the time orientation dimension of the value-attitude systems in the Mexican-American child and those represented by the school and sought to determine if social reinforcement would make a difference in the achievement behavior of the Mexican-American child.

The theoretical assumptions used as bases of this study were as follows:

1. The degree of congruence of middle class values and the sub-culture values influence the academic success of the student.
2. A reinforcer which follows a behavior increases the probability of the occurrences of that behavior.

The specific hypotheses tested in this study were:

1. Mexican-American children who are immediately reinforced during an instruction period will show more achievement behavior on a subsequent task than Mexican-American children whose reinforcement is postponed.

3. Mexican-American children whose reinforcement is postponed during an instruction period will show more achievement behavior than Mexican-American children who do not receive any reinforcement.

The subjects were 43 first grade boys and 45 first grade girls enrolled in schools with a population that is 44% Mexican-American.

The research design included three groups of Anglo and three groups of Mexican-American first grade children matched on the following variables: mental age, social class, ethnic group, sex and chronological age. The subjects were then randomly assigned to one of the following three groups: (1) immediate reinforcement, (2) postponed reinforcement, (3) control group. The study included two types of sessions. In the experimental sessions the child received instructions and was reinforced according to his group assignment. In the second type of session the criterion variable was measured. The length of time a subject worked on an unsolvable puzzle was used as a measure of persistence. There were three experimental and one criterion session.

Findings and Conclusions

The design was a two way classification; first over treatment groups having three levels and second over ethnic groupings having two levels. Due to the nature of the criterion variable, it is probable that random sampling did not provide comparable groups. In order to assure comparability an analysis of covariance was used in testing for significant differences between group means. The covariant used in the adjustment of criterion scores was the mental age of the subject as measured by the spatial relations section of the SRA Primary Mental Abilities Test K-3. A Scheffe S Test was used to test for individual cell differences.

The prediction that Mexican-American children who are immediately reinforced will show more achievement behavior than Mexican-American children whose reinforcement is postponed was confirmed. The mean of the immediately reinforced group on the time measure was 12.629 compared to the postponed reinforcement condition of 10.251 ($p<.05$), significant in the predicted direction.

The second and third hypotheses were not confirmed with the results in the opposite direction to the prediction. The mean of the control group on the time measure, 14.689, was greater than either the immediate or postponed condition with means of 12.629 and 10.251 respectively. The difference was significant ($p<05$).

It was reasoned in the present study that immediate reinforcement would produce more achievement behavior than reinforcement that was delayed. While the findings substantiated this relationship, the conclusions that can be drawn are limited by the fact that the subjects in the control group had a higher mean score than either of the reward conditions. Four children in this group persisted for extremely long periods. This finding has suggested that the effect of learning materials and learning histories of children be investigated.

51. Malry, Lenton. The Educational and Occupational Aspirations of Anglo, Spanish, and Negro High School Students. The University of New Mexico, 1968. 143p. 69-9284.

The purpose of this study was to investigate and compare the educational aspirations of Anglo, Spanish-American, and Negro adolescents.

A review of the literature concerning previous studies of the aspirations of youth led to the development of three hypotheses. These are that the absolute level of aspiration of youth is directly related to their social class position, the relative aspiration of youth is inversely related to their social class position, and the aspirations of Negro and Spanish-American youth are, on the average, lower than those of Anglo youth. Since Negro and Spanish-American youth are disproportionately concentrated in the lower social class levels, it was expected that at least a part of the explanation for the lowest aspirations of Negro and Spanish youth could be explained on this basis.

To test these hypotheses a sample of 1195 Albuquerque, New Mexico, high school students were studied. Of the students studied, 699 were in the ninth grade and 496 in the twelfth grade. Ethnically, 698 were Anglo, 421 Spanish-American, and 76 Negro. The information necessary to test these hypotheses was gathered through the use of a questionnaire. The responses were coded and transferred to data processing cards for computer tabulation and analysis.

The analysis of the data obtained substantiated the hypotheses around which this study was oriented. Within each sex-ethnic category a direct relationship was found between social class and absolute level of educational and occupational aspirations and an inverse relationship was found between social class and relative level of aspiration. Although it was found that a high percentage of youth of all three backgrounds have high levels of aspiration, the lowest levels of aspiration were found among Spanish-American students. It was found that Spanish-American girls are oriented primarily toward technical and clerical jobs requiring less than a college education beyond high school. Anglo girls were found to have a slightly higher level of aspiration than Negro girls, but overall little difference was found between the aspirations of Anglo and Negro boys. The findings did indicate, however, that Negro boys, more than any other sex-ethnic category, seem to be divided into two groups--one with relatively high and the other with relatively low levels of aspiration.

52. La Belle, Thomas Jeffrey. Attitudes and Academic Achievement Among Male and Female Anglo and Spanish American Fifth Grade Students. The University of New Mexico, 1969. 354p. 70-17,287.

The purpose of this investigation was to provide increased understanding of high and low achievers through student perceptions of

school-related concepts. Specifically, this study attempted to measure and analyze the difference in meaning of ten school related concepts for three socio-economic status(SES) levels, two ethnic groups, two sex groups, and three levels of achievement among fifth grade students in terms of the evaluative, potency, and activity factors of the semantic differential technique.

The sample included 882 fifth grade students attending fourteen public schools in Albuquerque, New Mexico. The subjects were grouped: (1) on the basis of surname with 387 Spanish Americans and 495 Anglo Americans; (2) on the basis of fourth grade SRA Achievement Test composite grade equivalencies; (3) within each ethnic group on the basis of parent's occupation; and (4) on the basis of sex with 445 males and 437 females.

The semantic differential instrument consisting of ten concepts and nine bipolar adjectival scales was administered to the entire sample. The separate scale scores were converted to evaluative, potency, and activity mean factor scores for a total of thirty scores for each subject. Ninety three-way analyses of variance tests were run: (1) between the Spanish American and Anglo American groups to note the differences among achievement groups and between sexes and ethnic groups; (2) within the Anglo American group to note the differences among SES groups and achievement groups, and between sexes; and (3) within the Spanish American group to note the difference among SES groups and achievement groups, and between sexes.

Major Findings. (1) The results of Analysis I indicated that significant differences emerged favoring low achievers for two concepts, middle achievers for one concept, and high achievers for four concepts. With regard to the ethnic groups, two concepts differentiated with significance favoring Spanish Americans and one concept favored Anglo Americans. Significant findings between the two sexes were reported for all ten concepts with eight factor scores favoring females and five factor scores favoring males. There were three significant interaction effects present. (2) The results of Analysis II indicated that significant differences emerged favoring low achievers for two concepts, middle achievers for three concepts, and high achievers for five concepts. All ten concepts differentiated significantly between sexes with nine factor scores favoring females and eight factor scores favoring males. Among SES groups, one concept differentiated significantly in favor of the low level and six favored the high level. There were twenty significant interaction effects present. (3) The results of Analysis III indicated that significant differences emerged favoring low achievers for seven concepts, middle achievers for four concepts, and high achievers for three concepts. All ten concepts differentiated significantly between sexes with twelve factor scores favoring females and seven factor scores favoring males. Among SES groups one concept differentiated significantly in favor of the low level, ten concepts favored the middle level, and three concepts favored the high level. There were forty-eight significant interaction effects present.

Conclusions. (1) High achievers do not necessarily perceive school related concepts more positively, potently, and actively than do middle and low achievers. (2) Anglo and Spanish American fifth graders perceive school related concepts more similarly than differently. (3) Middle and high SES level students perceive school related concepts more positively, potently, and actively than do low SES level students. (4) Females view school related concepts more positively than do males but males tend to view concpets related to self-identity more potently and actively.

53. Kuzma, Kay Judeen. The Effects of Three Preschool Intervention Programs on the Development of Autonomy in Mexican-American and Negro Children. University of California, Los Angeles, 1970. 207p. Adviser: Professor Wilbur H. Dutton. 70-19,863.

Preschool intervention programs have focused upon the development of intelligence, language, and other cognitive skills of the disadvantaged young child. There are a number of important variables which affect cognitive and language development which have not been adequately evaluated. Some of these variable include task initiation, curiosity, impulse control, incidental and intentional learning, innovative behavior, field independence, reflectivity, persistence after distraction. These variables have been subsummed under the rubric of "autonomy" and defined as self-regulating behaviors which facilitate effective problem solving.

The major objectives of this study were: (1) to determine if there were measureable differences in autonomy between Mexican-American and Negro children, (2) to determine the effects of three different preschool intervention programs upon the development of autonomy in Mexican-American and Negro children, and (3) to determine the relationship between intelligence and the different aspects of autonomy.

This study evaluated 42 Mexican-American and 35 Negro children enrolled in the San Bernardino summer Head Start program. Nine classrooms were selected and were randomly assigned to the following three different groups: (1) Autonomy treatment which utilized a specially prepared Autonomy Program Guide, which contained suggestions about how the teachers could foster the development of autonomy in young children; (2) Language treatment which utilized the UCLA Preschool Language Program which stressed the development of language as it related to the different subject areas in school; and (3) Regular Head Start treatment which served as the control group.

The data on these children were obtained by utilizing the PPVT as a measure of intelligence and the Cincinnati Autonomy Test Battery (CATB) as a measure of autonomy. Data on the teachers and aides were obtained by the use of the UCLA Characteristics of Teaching Staff, the UCLA Teacher Expectations of Achievement for Children in Head Start (TEACH) the Observer's Rating Form (ORF), and a teacher's reaction sheet.

The results of this study indicate the following: (1) in general

Mexican-American and Negro children appear to be very similar in the various aspects of autonomy; (2) Autonomous behavior tends to increase when children are in a preschool program, irrespective of different types of supplimentary curricula; (3) Mexican-American children tend to increase more in autonomous behavior during a preschool program than do Negro children; (4) Intelligence can be increased significantly in seven weeks when children are in a preschool program that emphasizes either language or autonomy; (5) Intelligence correlated positively only to those aspects of autonomy which may be considered cognitively orientated, for example, competence in English, task competence, persistence, field independence and reflectivity; and (6) Differences in teacher expectations and teaching performance should not be ignored when studying the effects of different intervention programs.

54. Shane, James Felton. Time Perception: A Comparative Study of Mexican-American and Anglo-American Subjects Involving Temporal Sense and Perspective. Oklahoma State University, 1970. 124p. Adviser: Dr. Kenneth St. Clair. 71-11,272.

The theoretical foundation for this study suggests that the perception of temporal events is learned in association with socialization experiences accompanying normal development. The study undertook examination of socio-cultural variation in the perception of temporal relationships. Central to such an explanation of perceptual variation are the variables of socio-economic class and ethnic background. Mexican-American and Anglo samples were divided internally into "above average" and "below average" socio-economic classes (N=88).

The several dimensions of time constituted the dependent variables under study, including measures of temporal sense and perspective. Temporal sense was measured through administration of Verbal Estimation and Reproduction tests; temporal perspective through a Question Test (Sturt, 1925) and the "Picture Arrangement" subtest of the Wechsler Intelligence Scale for Children (Wechsler, 1949). Chronological age, grade placement, sex, and mental ability of subjects were equated across samples.

Findings and Conclusions: Sixth grade Mexican-American and Anglo school children differed significantly on the several measures of sense of time. In terms of Verbal Estimation, a significant difference was obtained between the Mexican-American and Anglo samples ($p=<.025$). The Mexican-American sample consistently over-estimated each of four "empty" intervals and were less accurate in their judgments than the Anglo sample. Reproduction, an additional sense of time measure, resulted in a significant difference between the ethnic samples ($p=<.025$). Based on these results, the Mexican-American sample revealed greater variability in sense of time as indexed by standard deviations.

The Questions Test and the "Picture Arrangement" subtest, both measures of temporal perspective, revealed no significant differences between Mexican-American and Anglo samples. Item analysis of the

Questions Test indicated that Mexican-American and Anglo subjects have attained most of the tested concepts by this stage of development.

Intra-sample analysis revealed a significant difference between "bilingual" and "non-Spanish-speaking" Mexican-Americans in terms of temporal perspective ($p=<.05$). In this case, a greater proportion of "bilingual" Mexican-Americans scored "below norm" on the "Picture Arrangement" measure.

In terms of socio-economic level, no significant difference was obtained between "above average" and "below average" SES samples in sense of time as measured by Verbal Estimation and Reproduction. Correspondingly, results of the Questions Test and "Picture Arrangement" subtest revealed no significant difference between the several socio-economic levels with respect to time perspective.

Based on these results, a socio-cultural explanation of variation in the perception of time draws support. Significant differences were obtained between the several ethnic samples in terms of sense of time. Such differences represent a differential in developmental experiences related to time usuage.

Intra-sample analysis pointed to a significant difference in temporal perspective within the Mexican-American sample. It was theorized that such a difference may be related to "stage of enculturation."

Previous research has suggested that time orientation, the relating of behavior primarily to a given dimension of time; i.e., "past," "present," or "future," may vary according to social class. In this study, no significant difference was obtained between several socio-economic levels in terms of other temporal sense of perspective. In contrast to orientation, temporal sense and perspective do not appear to vary as a function of social class.

55. Bongers, Lael Shannon. A Developmental Study of Time Perception and Time Perspective in Three Cultural Groups: Anglo American, Indian American, and Mexican American. University of California, Los Angeles, 1971. 137p. Adviser: Professor Norma D. Feshbach. 72-2779.

The principal objective of the present study was to determine whether perceived durations in three cultural groups at two age levels are related to the activity filling that duration. Do members of Anglo American, Indian American, and Mexican American groups perceive the passage of time differently (a) when they are actively engaged in a test of skill and observing progress, (b) when they are idle? Further, do the same three cultural groups differ in their perspective of the past, present and future; does increasing maturity affect these differences; and what relationships are observed between the temporal variables, need achievement, and locus of control.

Differences in time perception for younger subjects were as predicted. Younger Anglo Americans experienced filled time as shorter than empty time while Indian and Mexican Americans experienced no difference in the two times. For older subjects, differences were always in the predicted direction, filled time being experienced as shorter. However, an order effect was observed; filled time was perceived as significantly shorter only when the empty interval was presented first for all three cultural groups. Differences between cultural groups were significant for younger but not for older groups.

Differences in time perspective were as predicted. Anglo Americans were more future oriented and Indian and Mexican Americans were more present oriented. Large age changes were observed for Anglo Americans and lesser age changes were observed for Indian and Mexican Americans; though age changes for all groups were in the direction of approximating the temporal standards of the dominant culture. Time perception and time perspective were modestly correlated as expected, but need achievement and locus of control were not related to the temporal variables.

For both temporal variables, excepting the order effect, pervasive group and age change differences were found between the response pattern of the dominant culture sample and the subculture samples. The significance of these differences was discussed in terms of alternative theories of time perception and the extent of influence of the dominant culture on each cultural group.

Lesser but consistent differences were also found in age changes of Indian Americans and Mexican Americans, and these were attributed to the Indian sample being drawn from a largely Anglo American neighborhood, and the Mexican American sample being drawn from a largely Mexican American neighborhood. The accommodation of educational programs to cultural group differences was suggested.

56. Karadenes, Mark. A Comparison of Differences in Achievement and Learning Abilities Between Anglo and Mexican-American Children when the Two Groups are Equated by Intelligence. University of Virginia, 1971. 139p. 72-7292.

The low academic achievement of Mexican Americans when compared with that of Anglos was documented by researchers. It was found that different learning abilities could account for differences in academic achievement, and ethnicity could account for differences in learning abilities; therefore, it could be concluded that a relationship between ethnicity and academic achievement existed.

The purpose of this study was to determine whether or not differences exist in achievement and learning abilities, as they relate to intelligence, between Anglo and Mexican-American male kindergarten children. Researchers found in their investigation that Mexican Americans dropped out of school earlier and earned a lower income than did Anglos. It was determined that educational proficiency enabled individuals to earn

incomes which would increase opportunities for social mobility. Therefore, it became incumbent upon educators to seek solutions to the preblems which prevented the Mexican Americans from attaining a more equitable share of the benefits in society.

The major hypothesis of the study was: Anglo and Mexican-American male children enter the kindergarten with differences in achievement and learning abilities. Thirty null hypotheses and subhypotheses were formulated and tested in order to answer the major questions of the study. The questions were as follows:

1. Do Anglo and Mexican-American male children enter kindergarten with differences in mean academic achievement scores as measured by standardized tests?
2. Do Anglo and Mexican-American male children enter kindergarten with differences in the mean scores of learning abilities as measured by a diagnostic test?

Forty-five Anglos and forty-five Mexican-Americans were selected from a base sample of 126 Anglos and Mexican Americans who attended the public elementary schools in Santa Monica, California during the fall semester of 1970. The Stanford-Binet Intelligence Test and the Wide Range Achievment Test (WRAT) were administered to the sample by certificated school psychologists. The Meeker Profile, an overlay for the Stanford-Binet, was utilized to measure learning abilities. The statistical design for the study was a two by three factorial design. The sample was stratified into three IQ levels: low (60-92), medium (93-101), and high (102-140). The study included two independent variables. They were: four criterion measures of achievement and six criterion measures of learning abilities. The mean score of the ten measures were compared by an analysis of variance program which was used to determine F significances at the .05 level of confidence. The results determined from the data made it possible to reject eleven of the null hypotheses and to accept nineteen of the null hypotheses.

Findings

From the evidence obtained in the study, the following findings appeared to be of importance:

1. Ethnicity and IQ significantly influenced the mean achievement scores for each of the four WRAT tests of academic achievement (average, reading, spelling, and arithmetic).
2. One interaction effect was indicated between ethnicity and IQ among the mean scores of the spelling test. The source of this interaction was the Mexican-American medium group achieving lower mean scores than did the Mexican-American low group.
3. The Anglo medium group achieved similarly to the Anglo and Mexican-American high groups on each of the four WRAT tests.
4. The Mexican-American medium group achieved similarly to the Anglo and Mexican-American low groups on each of the four WRAT tests.
5. The greatest disparity in mean achievement scores on all four criterion measures (WRAT) was found to exist between the Anglo and Mexican-American medium groups.

6. IQ influenced significantly the mean scores of two of the six areas of learning abilities (memory and evaluation).
7. In summary, it appeared that achievement was affected by ethnicity and intelligence, and that learning abilities, in general, were not influenced by either ethnicity or intelligence.

57. Naylor, Gordon Hardy. Learning Styles at Six Years in Two Ethnic Groups in Disadvantaged Area. University of Southern California, 1971. 131p. Adviser: Professor Meyers. 71-21,481.

The purpose of the study was to investigate learning style among young children of a disadvantaged area and in particular to examine the relationship between four selected learning styles and ethnicity.

Recent studies had suggested that stable modes of perceptual and behavioral functioning existed among young children. These modes of functioning were found to vary from individual to individual, to be related to age, and in some cases to sex. However, most of the previous investigations had been with older children and adults of Anglo-American and Negro ethnicity. None was based upon a Mexican-American population.

Differences in the learning behavior of Mexican-American children when compared to Anglo-American children have commonly been attributed to the differential influence of the Mexican-American culture. In this investigation it was expected that the Mexican-American groups would demand more information in decision making, would be more field-dependent, less impulsive, and less original than the Anglo-American groups. The issue of appropriate evaluative instruments for diagnostic use with educationally disadvantaged children was also related to the purpose of the investigation.

Procedure and Research Design. The subjects were forty Mexican-American and forty Anglo-American six-year-old children in grade one, all of whom had had one year of public school kindergarten. The comparison groups were randomly selected from the population of grade one children in five elementary schools located in a disadvantaged area of a large suburban community. Furthermore, each of the five elementary schools had a Mexican-American student population ranging from 35 to 54 per cent of total enrollment.

The design of the research compared the groups on four learning style tests. An equal number of boys and girls was selected from both ethnic groups. A two-by-two covariance design was employed to determine the significance level of the independent variables, sex and ethnicity, in relation to the dependent variables, learning style test measures. To eliminate or control for any differences in academic ability among the comparison groups, Metropolitan Readiness Test scores were used as covariates.

The test battery used in the investigation was assembled from the literature and directly from the authors themselves. The tests were selected to measure the learning styles: (1) Information demand, (2) Impulsivity-reflectivity, (3) Field independence-dependence, and (4) Originality. The children were tested individually in the familiar environment of their schools by school psychologists experienced in evaluating young children.

Findings. Of the four research hypotheses tested in this investigation, one, and that only partially, was sustained. No significant differences between sample groups were found on the basis of learning style test performance with the exception of the Impulsivity measure where the Anglo-American group made more errors than did the Mexican-American group. The interaction of sex membership and ethnicity failed to result in significant differences between groups for any of the learning style measures.

Conclusions and Discussion. The findings of this study failed to support the hypothesized learning style differences between the Mexican-American and Anglo-American six-year-old sample groups with the possible exception of Impulsivity. It is noted that all sample groups met the criterion for Impulsivity as defined by Kagan.

Although the logic of Mexican-American cultural differentness is compelling, it appears that with the control of socioeconomic status, age, and other intervening variables, the cultural differences of the sample population were less influential upon learning style than those determinants common to both cultures.

58. Swize, Myron Theodore. Prediction of Piagetian Conservation for Second Grade Mexican-American and Anglo-American Children. University of Northern Colorado, 1971. 104p. 72-13,331.

The purpose of this study was to determine the possible relationship between the ability of selected second grade students to perform six Piagetian conservation tasks and the resulting composite score and the following predictor variables: socio-economic level, ethnic background, primary language used in the home, nursery school, New Nursery School, Head Start, Kindergarten, CA, MA, IQ, sex, arithmetic, spelling, and reading achievement. Conservation tasks were those of two-dimensional space, number, substance, continuous quantity, weight, and discontinuous quantity.

Subjects chosen for this study consisted of 70 (33 boys and 37 girls) second grade students from elementary schools of School District 6, Greeley, Colorado. Thirty-four Mexican-American and 36 Anglo-American subjects made up the sample.

Data were obtained for the subjects in the following ways:

1. Intelligence quotient and mental age were determined by the results of the Columbia Mental Maturity Scale, administered to the subjects individually.
2. Performance on conservation tasks as well as the composite score were determined by the results of the Concept Assessment Kit-Conservation, administered to the subjects individually.

3. Scores for Arithmetic, Spelling, and Reading Achievement were determined by the Metropolitan Achievement Test, administered to the subjects by the classroom teacher in January, 1971. The results were made available for this study by School District 6.
4. Data concerning predictor variables such as CA, sex, pre-school experiences, ethnic background, and language used in the home were made available to the investigator by School District 6.
5. Socio-economic level of the family of each of the subjects was determined by an abbreviated form of Warner's Index of Status Characteristics.

The data were subjected to two statistical procedures: (1) Pearson product-moment correlation, and (2) multiple linear regression in which one full model and 19 restricted models were run for each of the seven criterion variables.

1. Enrollment in the New Nursery School and Head Start correlated significantly but negatively at the .05 level with the ability to conserve two-dimensional space.
2. No predictor variables related significantly with the ability to conserve number.
3. Enrollment in the New Nursery School correlated significantly but negatively at the .01 level with the third criterion substance, and Reading achievement scores correlated significantly at the .05 level with the same criterion.
4. High scores on Arithmetic and Reading Achievement correlated significantly at the .05 level with the ability to conserve continuous quantity. Enrollment in Head Start related significantly but negatively at the .05 level with this same criterion. Boys did significantly better (.05 level) than girls with this conservation task.
5. Enrollment in nursery schools and higher mental age related significantly with the ability to conserve weight. Enrollment in the New Nursery School was negatively and significantly related to the ability to conserve weight. All correlations were significant at the .05 level.
6. Enrollment in the New Nursery School and Head Start related negatively and significantly at the .05 level with the ability to conserve discontinuous quantity.
7. Higher scores on Reading achievement related significantly at the .05 level with the composite score. The relationship between enrollment in the New Nursery School and Head Start and the composite score was significant at the .01 level but negative.
8. In the regression analysis only the R value for the full model system for the criterion variable weight was significant, at the .05 level. When the individual variables were tested, only socio-economic level and primary language used in the home yielded a significant and positive specific contribution to the prediction of the criterion weight.

MEXICAN-AMERICANS

Jensen Theory

59. Annicchiarico, James Robert. Syntactically Mediated Paired-Associate Learning of Normal and Educationally Retarded Anglo- and Mexican-American children. The University of Texas at Austin, 1970. 169p. Adviser: Professor Beeman N. Phillips. 70-18,196.

This study investigated the implication in Arthur R. Jensen's theory of primary and secondary retardation that the Level II learning ability deficits (e.g., deficits in abstractions, symbolic mediation, etc.) in lower-SES educationally retarded Ss is not amenable to direct instruction designed to train Ss in the spontaneous utilization of Level II processes. The experiment investigated the syntactically mediated PA learning of 64 normal and educationally retarded fifth- and sixth-grade Ss, who were classified according to several variables: SES, middle-class vs. lower-class; Ethnic Status, Anglo- vs. Mexican-American; and IQ, high (99-115) vs. low (70-85). Employing a modification of the syntactical facilitation of PA learning paradigm, Ss learned four picture-pair PA lists in two sessions, two lists per session, under experimental and control conditions. Experimental Ss received varying degrees of mediational instruction for the first two lists, while control Ss received no mediating instructions. All Ss received the same nonspecific instructions for the two lists used in the retention session one week later.

Three hypotheses were generated concerning the results of the study. 1.) Non-facilitated PA learning will closely reflect IQ differences in both high and low SES control groups. 2.) The normal and educationally retarded experimental groups will show greater speed of PA learning during verbal mediation instruction when compared to control groups not receiving instructions. 3.) A comparison of performance between experimental and control Ss on the retention lists will show significant differences in favor of the experimental groups, thus indicating transfer of the mediation set. This result is to be expected for all experimental groups except the educationally retarded high SES Ss, whose performance will be comparable to that of the non-mediating educationally retarded control Ss.

Separate analyses of variance were performed on the learning data in terms of both SES and Ethnic Status variables. The analyses carried out in terms of SES differences clearly supported hypotheses 1. and 2. Support for hypothesis 3. was equivocal. When the retention list performance decrement of all experimental groups was analyzed, however, there was substantial support for the finding that the high SES educationally retarded Ss profited least from mediation instruction

When the learning data were analyzed with Ethnic Status as a principal factor, significant differences were found between the learning performance of the Anglo- and Mexican-American Ss. These differences were found to be associated with superior performance on the part of the educationally retarded Mexican-American control Ss, and the educationally normal Mexican-American experimental Ss.

On the basis of these results, it was suggested that the present study in contrast to Jensen's position, offered substantial support to the position that the verbal mediation production deficiency among low SES low IQ Ss is probably relative to the restricted opportunity to learn higher order verbal habits in the restricted social and interpersonal environment characteristic of disadvantaged children. It was also tentatively concluded that minority group status may override SES differences in Level I (associative learning) and Level II abilities in the minority group populations sampled in this study.

60. Price, James David. Analysis of Changes in Intelligence Test Scores of Mexican-American Youth Assigned to Special Classes in Relation to Jensen's Two-Level Theory of Mental Abilities. The University of Arizona, 1971. 85p. Adviser: Francis E. Lord. 72-1713.

The purpose of this study was to analyze changes in intelligence test scores of Mexican-American youth assigned to special classes in relation to Jensen's Two-Level Theory of Mental Abilities.

Preliminary investigation revealed that appreciable numbers of Mexican-American EMH youth, attending classes in Tucson District #1, had experienced marked increases on their individual intelligence scores since assignment to special education.

Twenty-five subjects, the marked increase group, who had registered minimum gains of ten points were selected. An additional twenty-five subjects, the contrast group, who had registered little change were also selected. Other eligibility criteria were met by both groups.

Instruments were employed, according to Jensen's rationale, to measure the Level I and II abilities of each group. Comparisons on each instrument were made with the t statistic. Other investigation centered on relationships between Level II results and referral tests.

Both groups demonstrated similar Level I abilities; however, the marked increase group displayed significantly superior abilities on Level II tasks. Limited relationships were found between Level II and referral tests.

Specific results were:

1. Paired-associates (Level I) revealed no differences between the groups on either the first attempt (t-ratio of .3303) or second attempt (t-ratio of -.3534).
2. Coding (Level I) showed no differences between the groups (t-ratio of 1.2011).
3. Visual association (Level II) demonstrated the significant superiority (t-ratio of 10.4117) of the marked increase group.

4. The Raven Progressive Matrices (Level II) also revealed the significant superiority (t-ratio of 7.7597) of the marked increase group.

5. No relationships, significant to the .05 level, were found for either group between their referral sub-tests and the visual association test.

6. Correlation of .500 (significant at the .02 level), for the marked increase group, was found between their Raven Progressive Matrices and their referral WISC sub-test of picture completion. Correlation of .433 (significant at the .05 level), for the contrast group, was found between their Raven Progressive Matrices and their referral WISC sub-test of coding.

Results revealed the possible applicability of Jensen's rationale in explanation of the increased intelligence scores. Two major hypotheses were substantiated. That both groups would demonstrate similar abilities on Level I tests and that the marked increase group would demonstrate significantly superior abilities on Level II tests.

Correlations achieved by the marked increase group between both Level II instruments and the referral sub-tests of picture completion and picture arrangement indicate consideration of these subtests at Level II indicators. Experimental success of the coding (Level I) and visual association (Level II) tests indicate their further consideration as measurement devices.

Conclusions and Recommendations

Mexican-American EMH Students should be re-evaluated in terms of Level I and II abilities. Placement reconsideration should be made for those students demonstrating more advanced Level II abilities. Curricula emphasis, toward more optimum development of Level I abilities, should be made for those with inferior Level II abilities.

Traditional intelligence tests should be viewed as incomplete assessments and should be supplemented with measures of Level I and II abilities.

Research is needed to discover the most feasible means for the identification of Level II abilities in younger children and to investigate possible educational methods conducive to the development of Level II abilities.

Replication should be made of the methods and techniques employed in this study to further investigate the value and validity of Jensen'a Two-Level Theory of Mental Abilities as a vehicle for the asessment of secondary retardation in Mexican-American children.

MEXICAN-AMERICANS

Mathematics

61. Castaneda, Alberta Maxine Mondor. The Differential Effectiveness of Two First Grade Mathematics Programs for Disadvantaged Mexican-American Children. The University of Texas, 1967. 280p. Adviser: Dr. Clyde Inez Martin. 68-4264.

The problem of this study was the development, demonstration, and subsequent analysis of the effectiveness of a mathematics program for a group of disadvantaged Mexican-American first grade pupils. The general process followed in the development of the experimental program was to choose content from the basic concepts of mathematics, to select within each concept items of content which were accurate and deemed teachable to disadvantaged Mexican-American first graders, and to develop a sequence of activities from which the pupils, using their own perception and intellection, could conclude the truth of the content items.

The development of the sequences of activities took into consideration the following three progressions: that a child's response progress from perceptual to conceptual, that a child progresses from complete dependence on sensory data to an ability to use language in the formation of concepts, and that the development of higher-order concepts is dependent upon the prior development of first-order concepts.

In the experimental program, there was an attempt to counterbalance the anticipated ineffectiveness of external motivation with disadvantaged children by capitalizing on the learners' competency drive and on the intrinsic motivation of success and of structured learning.

The analysis of the effectiveness of the experimental program was done through the comparision of the arithmetic achievement gain made by the children taught the experimental program and that made by a control group taught the regularly-used textbook-oriented mathematics program.

Through a series of single classification analysis of variance computations, it was revealed that the experimental group made greater gain than did the control group and that the boys and children of low Number Readiness in the experimental group made greater gain than did like subgroups of the control group. No other differences were indicated. The inclusion in the experimental program of several areas of mathematics not in the totally-arithmetic program taught to the control group, resulted in less time for arithmetic instruction in the experimental program, therefore, the experimental group made gains equivalent to or greater than those made by the control group in less time and the instruction from the experimental program was deemed "efficient" instruction.

Another series of single classification analysis of variance computations revealed that there was no difference between the gain made by

another member of contrasting pairs of subgroups in the experimental group. In the control group the children of high Number Readiness made greater gain than did the children of low Number Readiness. All subgroups in the experimental group made a positive gain. Only the boys and children of high Number Readiness in the control group made a positive gain. It was concluded that there was better provision made for individual differences in the experimental program than in the control program.

62. Rivera, Hugo H. Ascertaining Language and Computational Curriculum Needs for Economically Disadvantaged Mexican-American Elementary Students. Arizona State University, 1971. 93p. Adviser: Merwin Deever. 71-29,404.

The purpose of this study was to ascertain curriculum language and computational needs of economically disadvantaged Mexican-American elementary students.

The statistical test used in the analysis of the data was the Kruskal-Wallis One-Way Analysis of Variance by Ranks. This test was used because it had a power efficiency of 95.5 percent when compared with the F Test, the most powerful parametric test.

The types of data required for the study included achievement test scores, socioeconomic status ratings, family language background classifications. Upon investigation it was determined that Stanford Achievement Test scores for all grades in the Casa Grande Public Elementary School System were available for the school year 1968-69.

The population sample was composed of two groups. Those children in the Casa Grande Public Elementary School System administered the Primary Battery of the Stanford Achievement Test in grade 2 and the Intermediate Battery in grade 5, both during the month of March, 1969. The final sample consisted of 112 children in grade 2 and 119 children in grade five.

The analysis of the data led to the following conclusions:

1. In grade two, disadvantaged Mexican-American children attending public elementary school classes do not differ significantly from other disadvantaged children of the same or other cultural backgrounds in total English language ability as measured by the Stanford Achievement Test.
2. In grade five, disadvantaged Mexican-American children attending public elementary school classes do differ significantly from other disadvantaged children of the same or other cultural backgrounds in total English ability as measured by the Stanford Achievement Test.
3. The disadvantaged Mexican-American children in grade 5 were .68 or almost seven academic months behind or below the grade norm in total achievement for the five classes at their grade level. This indicated that academic handicaps continue to increase for such children as their school career progresses.
4. Significant positive relationships occur between total English language abilities, reading, and arithmetic when compared with total school achivement for economically disadvantaged Mexican-American

children.

5. Significant positive relationships existed at both grade levels between total school achievement, total English ability, reading ability, and arithmetic ability. The calculated correlation coefficients ranged from .78 to .92 at the second grade level and from .83 to .95 at the fifth grade level. Therfore it appears that the home environment regrading improper linguistic development in both English and Spanish languages has a direct bearing on this positive relationship.

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